

FORUM

55

The Magazine of the

WIRTGEN GROUP

www.wirtgen-group.com

01/2018

Sustainable Operations

Environmentally Friendly Solutions
for Road and Mineral Technologies

WIRTGEN

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VÖGELE

/

HAMM

/

KLEEMANN

/

BENNINGHOVEN

"The future belongs to companies that operate in a sustainable and responsible manner."



Dear Employees, Partners, Customers, and Friends,

As market leaders and drivers of innovation in many segments of road construction and in the extraction and processing of useful minerals, we have been developing environmentally friendly technologies and products for decades.

The Wirtgen Group's innovative processes, like cold recycling or the treatment of construction waste, play an active role in conserving valuable resources and reducing climate-damaging emissions. The mechanical engineering advancement of environmentally friendly product solutions for road and mineral technologies is part of our company's long-term success strategy.

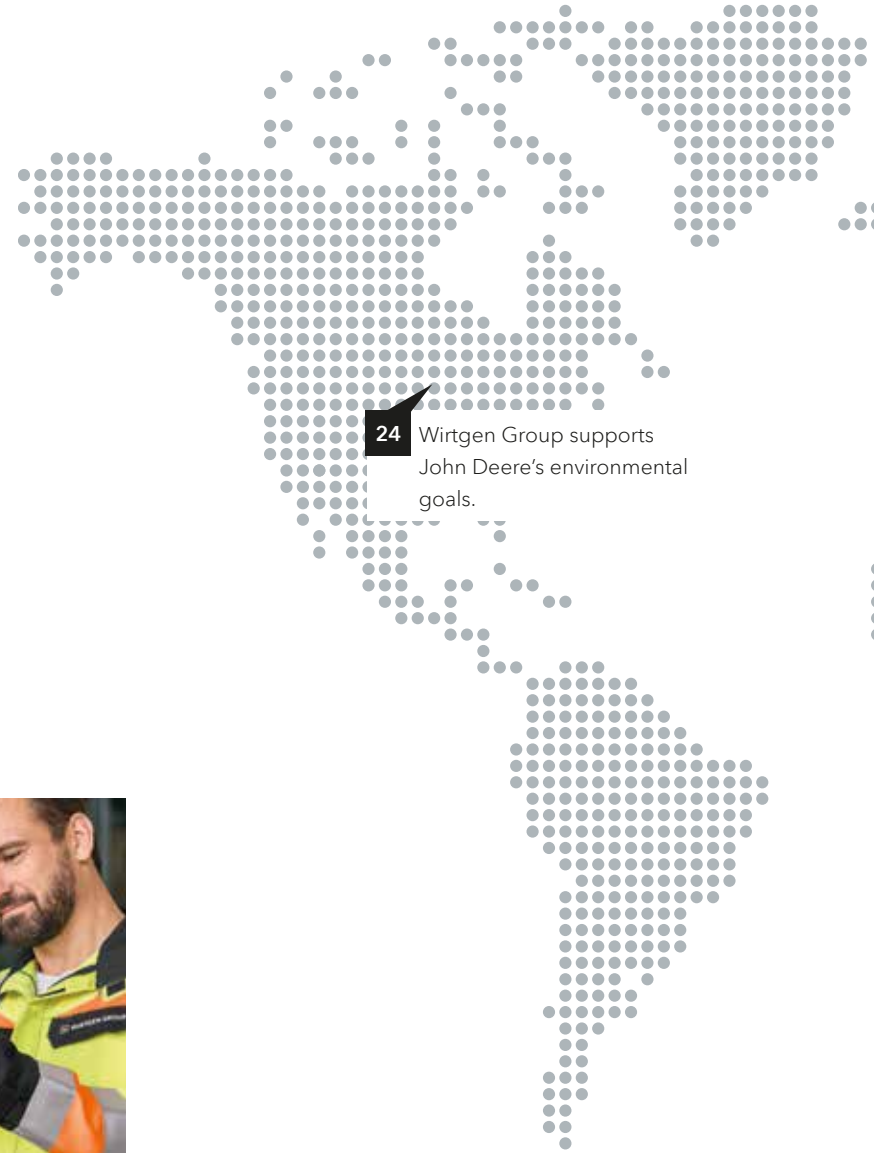
We don't take the issue of sustainability lightly. The issues of economic efficiency, social equity and environmental accountability are firmly embedded in our corporate principles. Over the long term, our policies represent an important contribution to mobility and the extraction of useful minerals and building materials in harmony with the environment. In this context, the use of products from the Wirtgen Group is not only synonymous with sustainability but also always means maximum cost-effectiveness and quality.

We are convinced that the future belongs to those companies that operate sustainably and responsibly. At the Wirtgen Group's state-of-the-art main plants in Germany and at our production sites around the world, intelligent production systems and processes save valuable resources every day and ensure that soil, water, and air remain clean. By systematically optimizing our global logistics operations, we are reducing the flow of goods and the number of shipments. In our production processes we will continue to emphatically pursue our commitment to protect the environment.

Customers, for whom environmental considerations are central to their corporate goals, can now, even with the highest quality demands, implement their projects in an environmentally friendly, cost-effective way using our machines and technologies.

Hearty greetings,

Domenic G. Ruccolo



24 Wirtgen Group supports John Deere's environmental goals.



38 Road Technology Days provide practical insights.

48 Visitors experience innovative new products at the Intermat trade show in Paris.

Giving homeless children in the Philippines the tools they need to help themselves.

52



FORUM 55 will show you that sustainability is one of the Wirtgen Group's core principles.

IN FOCUS

- 08 ■ **Green Elements**
Environmentally friendly production at our main facilities.
- 14 ■ **Reliable Partnerships**
Supplier management evaluates quality.
- 16 ■ **Power Hybrid**
An environmentally friendly solution from Hamm.
- 20 ■ **Cold, Hot, Sustainable**
Groundbreaking technologies and products.
- 24 ■ **Commitment**
John Deere 2022 Sustainability Goals.
- 26 ■ **A Passion for Real Progress**
Interview with CEO Domenic G. Ruccolo.

SALES + SERVICE

- 30 ■ **A Perfect Fit**
Part 2 of our Customer Support series introduces our spare parts service.
- 34 ■ **Big Data**
Wirtgen Group Telematics and On-Site Solutions.
- 38 ■ **Road Technology Days**
Around 4,000 visitors experience the latest technologies.
- 48 ■ **Trade Shows + Events**
In-depth discussions with customers.

PEOPLE + INITIATIVES

- 52 ■ **Learning on the Street**
Mobile school teaches homeless children in the Philippines.

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TRENDSETTER MEETING THE HIGHEST STANDARDS

Sustainability is an integral part of the Wirtgen Group's corporate principles. Our innovative processes and products demonstrate this time and again – to the benefit of our customers.

-  Lowering CO₂ emissions
-  Cutting fuel consumption
-  Reducing the use of energy
-  Decreasing water consumption
-  Quieting noise
-  Preventing waste
-  Increasing recycling
-  Dampening vibration emissions

ENVIRONMENTALLY FRIENDLY PRODUCTION

Green Elements

The Wirtgen Group's main facilities are among the most state-of-the-art factories for road construction equipment manufacturing in the world. Intelligent production systems and processes guarantee efficient and resource-friendly operations.

90

PERCENT

is the amount that Vögele succeeded in cutting its emissions by as a result of switching from wet coating to solvent-free powder coating.



The Wirtgen Group's main facilities in Germany and its production facilities in Brazil, India, and China are not only the birthplaces of leading road construction technologies, they also conserve valuable resources each and every day and ensure that the soil, water, and air are kept clean. "By using waste heat to heat the workshops and offices, we have been able to significantly cut our use of external energy sources," explains Waldemar Bukal, Department "plant management". In the production halls, high-speed doors that only stay open for a short period of time also save heating energy. "Where necessary, air curtains installed on the doors prevent heat from escaping; this not only protects employees from drafts, but also reduces heating costs and as such, CO₂ emissions," adds Rolf Fetzner, head of job scheduling at Kleemann.


Large skylights in the production halls flood the spaces with light, but without any glare. This natural light source is unfortunately not enough to provide optimum lighting for the production facilities on dark, rainy days – and even less so at night – which

means additional artificial lighting is required. But adjusting the amount of light used based on the external conditions is both sensible and efficient. The Wirtgen Group achieves this with the aid of state-of-the-art lighting concepts and control systems. Even in the office building, for example, the lights only turn on in the corridors, the copying rooms, and the storage rooms when someone has actually entered the area. And the lights turn off again automatically when not in use.


Air and Water

State-of-the-art ventilation and heating systems create the perfect room conditions. Powerful extraction systems ensure that the air is kept clean. Frequency converters and energy-saving flaps ensure that the extraction system only runs during welding operations. "The system switches on immediately after work has started and switches off as soon as the welding process has been completed," explains Waldemar Bukal. The more extraction points are in operation, the more fresh air – preheated during cold German winters – is fed into the room.



 Wirtgen implements processes to reduce its carbon footprint, like producing components in-house at the Windhagen facility to cut the number of shipments required from external suppliers.




 At Kleemann, noise barriers for the test area have lowered the noise level in the rest of the hall by 15 decibels.

Closed water systems reduce fresh water requirements, and low-emission wastewater treatment plants remove foreign matter from the wastewater and return it to the halls in a cleaned state. Wastewater that cannot be treated is disposed of in an environmentally friendly manner. Retention basins prevent risks to adjacent bodies of water.

Powder Instead of Paint

"By switching from wet painting to solvent-free powder coating, we were able to reduce our emissions by about 90 percent," explains Salvatore De Marco from the Surface Technology department at Vögele in Ludwigshafen.

"We normally use the plant for large components and its double-track suspension system for parts up to 20 tons, with dimensions of 3 m x 3 m x 9 m," explains Jürgen Hesseler, head of surface technology at Wirtgen in Windhagen. "We can even


handle special components weighing up to 30 tons. The powder coating and the resulting improved surface quality were what particularly impressed our customers," explains Mr. Hesseler. Initially, the powder was applied in two shifts at the facility for large components in Windhagen, which also involved two passes through the curing oven – a time-consuming and cost-intensive process that was also logistically complex. In collaboration with a manufacturer of paints and coatings, a powder-in-powder process has been developed in Windhagen that does not require intermediate cross-linking and only requires one curing process. This not only streamlines processes and cuts costs, but is also better for the environment. Two powder applications, one curing process also means less time in the oven – resulting in lower gas and oil consumption. And as a side-effect, this improvement also increased production by 20%. 

70

TONS

is the amount of CO₂ Hamm saves each year through the use of geothermal energy.



 Hamm uses state-of-the-art environmental technology in the form of a geothermal system to heat and cool its office building. A total of 48 probes are installed under the employee parking lot.

Geothermal Energy and Low Noise Emissions

Under the Hamm AG employee parking lot, state-of-the-art environmental technology creates the perfect air conditions in the new office building. You won't find a gas or oil-fired heating system here – instead Hamm uses the temperature difference between the surface and deeper layers to heat and cool the building, with 48 geothermal probes buried up to 140 meters into the ground. A special liquid circulated through the system heats up below ground. In the central heating room, heat pumps and heat exchangers then harness this heat for room heating. In doing so, Hamm generates around 600,000 kWh of heating energy per year from a renewable energy source – equivalent to around 60,000 liters of oil saved.

This principle also works in reverse – during the summer, this system cools the building's air and covers around 200,000 kWh of cooling energy required annually. This reduces CO₂ emissions by up to 70% compared to conventional vapor-compression refrigeration systems.

Noise emissions can also be reduced, as an example from the Kleemann facility demonstrates:

During its latest facility expansion, the manufacturer of crushing and screening equipment from Baden-Württemberg has enclosed the test area at the end of line 3 with noise barriers. The other production lines will also receive this protection. "During the time while the machines there are tested for up to two days, we can reduce the noise level for the rest of the assembly hall by 15 decibels," says Markus Huber, responsible for the assembly matters within the expansion project. This corresponds to a perceived reduction in volume of 60 percent. According to Mr. Fetzer: "To our assembly team, this, of course, represents a real benefit and an improved working situation that also underpins our high standards of quality."

The Future is blue green

The world's largest and most advanced facility for the production of asphalt mixing systems is currently being built in Wittlich-Wengerohr, a truly STATE-OF-THE-ART factory. And at 130 million euros, it is also the largest single investment in the history of the Wirtgen Group. The employees at Benninghoven are looking forward to the upcoming move.

"We have a certain amount of experience in building production facilities for construction equipment," explains Dr. Günter Hähn, Senior Vice President Operations of the Wirtgen Group. After all, the Benninghoven facility is the group's eighth factory. In addition to the five main facilities in Germany, all of which were planned on greenfield sites except the Wirtgen location, the Wirtgen Group also operates plants in Brazil, China, and India.

"It goes without saying that we're using our in-house expertise to design the production lines and processes at Benninghoven for the planned production quantities. Future growth is always taken into account. But creating workstations and a working environment for our employees in which they feel comfortable and in which we can manufacture products of outstanding quality is also important to us. The Wirtgen Group obviously tries to do all this in harmony with nature and with as little impact on the environment as possible, especially during ongoing operations. "In many cases, our efforts go far beyond what is required by law," says Dr. Hähn. ■



Benninghoven is building the world's largest and most state-of-the-art production facility for asphalt mixing systems.



To create ergonomic workstations, Vögele installed height-adjustable worktables and a special wooden floor in the screed assembly hall that relieves strain on the legs when standing.



The quality of supplied parts is evaluated in a process that involves not only the purchasing department, but also production, service, and quality assurance.

SUPPLIER MANAGEMENT

Reliable Partnerships

When it comes to manufacturing its own products, the Wirtgen Group relies on a high level of vertical integration. With regard to suppliers, in addition to high quality, their adherence to defined standards and norms is extremely important to the group.

More than 150,000 individual parts are processed in prefabrication at the main facility in Windhagen alone. These are used to create an impressive 11,000 different versions and special components. The Wirtgen Group is committed to achieving the greatest possible degree of vertical integration and thus remains as independent as possible in sensitive areas of production, which ensures that in times of potential delivery bottlenecks, production doesn't stop because parts aren't available. The high degree of vertical integration also ensures consistently high quality and minimizes the flow of goods. In its own core areas of expertise, such as milling drums, belt frames, and software and control concepts, the group has consciously decided not to purchase parts from external suppliers.

When working with suppliers, compliance with its own values and standards as well as the quality of the parts supplied is extremely important to the Wirtgen Group. "We are committed to delivering on our promise of quality to our customers – it is one of our top priorities. That is why we only work with partners who prove to be the best over the long term and meet our requirements," says Michael Bous, head of purchasing at Wirtgen GmbH.

The Wirtgen Group relies on partners who are prepared to develop and grow with the group: "Above all, having a strong supplier base that is consistent with our growth strategy is important to us," says Mr. Bous.

Integrity is Key

In order to be able to assess and review suppliers, they are compared and evaluated once a quarter from a commercial, qualitative, and logistical perspective. In addition to delivery quality, quoted prices, contractual terms, and customer service, integrity also plays a major role. "Important issues such as labor and human rights, health and safety, the environment, and ethics are addressed in our Code of Conduct for Suppliers, which is binding for our business partners," Mr. Bous continues.

Mr. Bous is convinced that the merger with John Deere will open up completely new purchasing opportunities which our customers will benefit from: "The new synergies not only present an opportunity to further optimize quality, but can also be used to mitigate cost increases – for example for raw materials – for our customers. I am sure that both John Deere and the Wirtgen Group will benefit from this merger." ■



When it comes to storing and picking small parts, vertical elevators are used in all of the Wirtgen Group's facilities to implement the "goods to person, not person to goods" model.

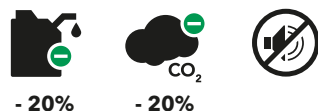
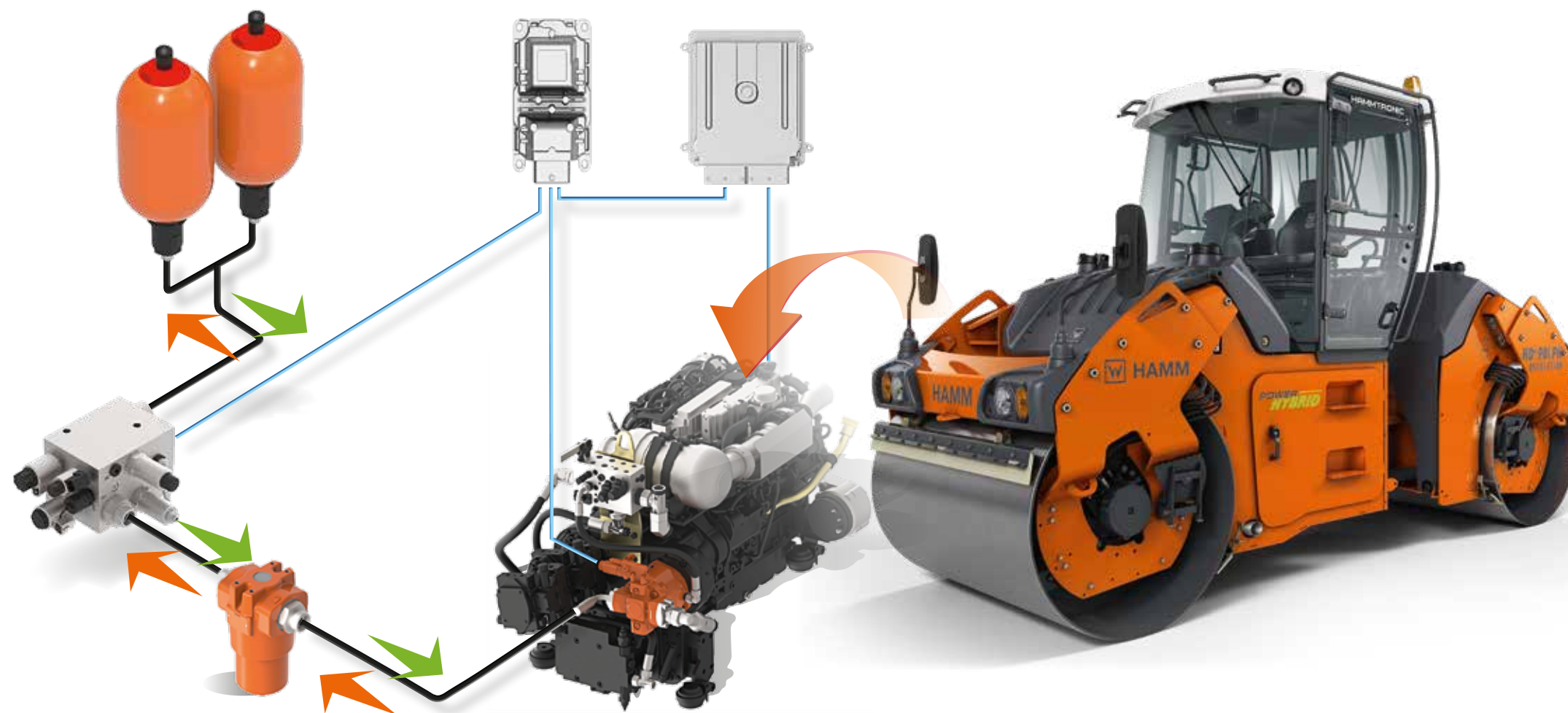


To ensure that the supplied parts are correctly integrated into the production process, all parts are managed in SAP and are picked in the logistics centers adjacent to production.

HAMM HD+ 90i PH TANDEM ROLLER

Power Hybrid

The HD+ 90i PH tandem roller with Power Hybrid drive is innovative and environmentally friendly. Compared with comparable models, it cuts fuel consumption and with it, CO₂ emissions, considerably - with the same compacting performance. And it's quiet, too. An environmentally friendly solution from Hamm.



Hybrid vehicles combine different technologies in one system. Modern hybrid cars, for example, usually have both an internal combustion engine and an electric drive system. In the past, tests with electrically assisted rollers weren't convincing, however. That is why the innovative experts at Hamm went in a new direction and combined an internal combustion engine with a hydraulic system. The result is the Power Hybrid drive, which is now being mass-produced in the 9-ton HD+ 90i PH, the world's first hybrid roller suitable for mass production.

Hybrid Drive: Maximum Performance Despite a Smaller Engine

The Power Hybrid concept takes advantage of the fact that although the maximum load is applied regularly during compaction, it is only ever needed for short periods of time. Typical situations for this include, for example, starting or activating vibration or oscillation. All other compaction tasks - such as driving or continuous compaction with oscillation or vibration - require significantly less power. A 20-30% smaller diesel generator would be sufficient for this.

But you also have to handle peak loads. This task is performed by the hydraulic accumulator. The hydraulic system operates similar to a pumped-storage power plant: as soon as the combustion engine stops running at full load, a pump starts to fill a hydraulic accumulator. If the roller then needs more power than the diesel unit can deliver, the hydraulic system functions as an auxiliary drive and provides up to 20 kW for a short time. Afterwards, the cycle starts over again with the refilling of the storage tanks. This is an excellent system, because maximum power is usually only required for a few brief seconds. After that, the system has plenty of time to refill the reservoir. Thanks to this technology, Hamm's Power Hybrid roller with a smaller, much more economical diesel engine can achieve the same high level of compaction performance as the 9-ton roller.

With the HD+ 90i PH, two additional components provide additional energy savings - an efficiency-optimized electric fan drive and an efficient start-stop system. All in all, the HD+ 90i PH needs an engine with an output of only 55.4 kW to compact with the same performance - equal to just under 30 kW or 35% less than its sister model with the "classic" drive system.

Protecting the Environment While Increasing Customer Value

Dr. Stefan Klumpp, Chief Technology Officer at Hamm, lists several aspects of the new, sustainable drive system: "As a technology-driven company, we are always looking for technical solutions to further reduce emissions. But they must also be easy to use and economical at the same time. The Power

20

PERCENT

less fuel with
100% compaction
performance

Hybrid drive meets all these requirements. In this context, the Power Hybrid roller offers the same functionality and is just as easy to operate as our classic models."

The approx. 20% reduction in diesel consumption speaks for itself. With this environmentally friendly concept, customers cut their CO₂ emissions with every use. In addition, the system emits significantly less noise. This is not only great for the roller drivers, but also for site personnel and residents in the vicinity of the construction site.

Environmentally friendly solutions such as the Power Hybrid drive are often also cost-effective. "Our customers achieve the greatest savings through the 20%-reduction in fuel consumption. But besides that, using a system that doesn't require AdBlue also saves time and money," explains Dr. Klumpp. This refers to the 56 kW threshold that the HD+ 90i PH does not exceed with its 55.4 kW engine. Engines that operate below this level do not require the addition of Ad-Blue for exhaust gas treatment. This simplifies handling in many places and as a result, reduces expenses for service and consumables.

Less Fuel, Maximum Compacting Performance

Over the course of 2017, the 9-ton roller with Power Hybrid drive could be seen in use at numerous construction sites throughout Europe. At the Swedish construction company NCC, the Power Hybrid roller ran for over 650 operating hours over a period of several months. Björn Jakobsén, machine manager at NCC, explains: "We were immediately impressed by the Power Hybrid concept. So we quickly decided to test it at our construction sites." No sooner said than done – and put through its paces. Analyses of the paving operations revealed two important findings: on the one hand, the PH roller delivered identical compaction performance as its sister model without hybrid technology. On the other hand, NCC recorded fuel savings of approx. 15%.

For Mr. Jakobsén, this is also the key to further, significant additional value: "Here in Scandinavia, environmental friendliness is an important aspect when selecting equipment, because we want to build in the most sustainable way possible." And less fuel also means fewer CO₂ emissions, the environmentally conscious Swedes like the Power Hybrid concept that much more.

Tried and Tested on the Road

Further south in Europe, on the Bavarian A93 highway, the HD+ 90i PH VO-S was entrusted with the job of compacting the binder course and wearing course over a section of road four kilometers long. The team from contractor STRABAG saw no differences in compaction performance and quality compared to the "conventionally" powered 9-ton rollers. According to



Peer Nylén, NCC, has been a roller driver for over 10 years and is very satisfied with the new Power Hybrid roller.

Stefan Eigenstetter, site manager for large and special equipment: "Our drivers praised the intuitive Easy Drive operating system and the excellent compaction results achieved with the Power Hybrid roller. And its noticeably quiet operation was also quite well-received."

The roller also produced extremely positive results in operations in southwestern France. The French construction company Eiffage used the HD+ 90i PH for several weeks in a number of projects in which a wide variety of different types of asphalt had to be compacted, ranging from projects in cities to the rehabilitation of country roads. Two experienced roller drivers tested the new system. They unanimously came to the conclusion that working with the roller is extremely comfortable due to the low noise level in the operator's compartment. Other than that, they didn't notice any differences to the 85 kW roller when driving and compacting.



The 9-ton roller not only saves fuel, it is also quiet during operation.

"Environmental friendliness is an important criteria for us when selecting equipment, because we want to build in the most environmentally friendly way possible."



Björn Jakobsén, machine manager "Nordic" at NCC

When it comes to compacting performance, Eiffage also fully stands behind the hybrid concept, as all of the construction sites were monitored by a laboratory team. Their analyses showed that in all of the projects, the degree of compaction corresponded to that of the conventional HD+ 90i.

Quieter, Less Maintenance, and a Wide Variety of Different Versions

Whether in Scandinavia, Central Europe, or the Mediterranean – the HD+ 90i PH has proven that it delivers what Hamm promises. And customers were pleased with the eco-friendly roller's economical operation, simple handling, and low maintenance requirements.

Today everyone can benefit from the Power Hybrid concept, because Hamm already offers the HD+ 90i PH in six different standard versions. ■

GROUNDBREAKING TECHNOLOGIES AND PRODUCTS

Cold, Hot, Sustainable

Sustainability in times of global population growth and the resulting constant expansion of infrastructure is a real challenge. This is precisely where the Wirtgen Group comes in, combining quality and innovation with sustainable technology.



Since they have to be efficient, reliable, cost-effective, and safe, the Wirtgen Group continuously optimizes its road construction and mineral extraction processes and adapts them to customer needs – and also implements them in as environmentally friendly a manner as possible. After all, the group views sustainability as more than just a passing fad. In fact, the Wirtgen Group has been developing groundbreaking technologies and products for decades.

Homogeneously Sorted Milling, Cost-Effective Recycling

Wirtgen built the first hot milling machines for its own service provider fleet in 1971. The idea to use the round shank bits used in mining with carbide tips made the technological and environmentally friendly transition from hot milling to cold milling possible in 1979. Thanks to state-of-the-art control and leveling technology, cold milling machines are now used to selectively mill individual pavement layers with outstanding precision. The removal of problematic building materials is just as possible as the normal separation of high-quality wearing courses with a high bitumen content. The wearing course, binder course and base course can be recycled separately, which in turn increases the sustainability of the milled material recycling process.


Hot for the Environment

This is exactly where Bennighoven comes in with environmentally friendly solutions. Like, for example, when it comes to the fact that more than 90 percent of the aggregate used in asphalt production can consist of recycled material, i.e. old roads. The keyword here is hot gas generators with countercurrent heat exchange. In this environmentally friendly process, the recycled material is heated indirectly by a burner in a countercurrent parallel drum. This not only maximizes the amount of recycled asphalt added, it also reduces the energy required to operate the plant. On top of that, the emission values remain well below the normal range.

Though not with heat, Kleemann also helps create greater sustainability through an effective reconditioning process, and supplies high-quality recycled products for the construction industry – which is the foundation for reducing the use of primary raw materials in construction projects. In addition to crushing and screening, process steps include sorting out light materials such as plastic and paper as well as separating metal. The result is high-quality recycled material that can easily be reused as an aggregate.

Wirtgen's cold recycling process goes one step further. Roads that are subject to persistent and heavy loads often suffer damage all the way to the subgrade. In order to repair this damage, the entire structure of the road must be rehabilitated. The com-



 Cold recycling from Wirtgen saves 10 to 12 liters of fuel per ton of paving material.



Surface miners cut, crush, and load rock in a single operation – without drilling and blasting.



 Kleemann construction waste recycling allows up to 100 percent of the building materials to be reused.



plete recycling of the paving material and its cost-effective treatment make cold recycling with foamed bitumen, a process that Wirtgen has played a pivotal role in shaping over the past 30 years, environmentally friendly and economical. During in-situ cold recycling, damaged asphalt layers are milled and crushed in situ, bound again by the addition of binding agents, compacted, and reused. As a result, customers require up to 90% less new material. This in turn leads to fewer material transports and as such, lower fuel consumption – as well as fewer CO₂ emissions. Compared to conventional rehabilitation methods, savings of up to 70 percent are possible. This makes cold recycling not only environmentally friendly, but also an economical choice thanks to reduction in material and transport costs.

Without Blasting and Drilling

Wirtgen Surface Mining demonstrates that the extraction of raw materials can also promote sustainability. In this process, materials such as coal, limestone, bauxite, iron ore, phosphate, oil shale, kimberlite, and salt are selected and extracted separately from the interburden – and as a result, the purity of the materials is higher at the end of the process. In addition, the three individual processing steps of cutting, crushing, and loading are combined into one step in direct loading. This 3-in-1 method saves the operator time and effort. Where previously rock also had to be pre-crushed, this step is no longer necessary at all with Wirtgen surface miners. This makes them significantly more cost-effective than conventional drilling and blasting processes with subsequent material loading. One reason for this is that they also lay out the access roads in the mine. As a result, the trucks used to transport the material are not only safer, but also faster overall. In addition, the transport vehicles suffer less wear and tear, which in turn is good for the environment. But surface mining stands out in a far more important aspect of sustainability – the process does not require drilling or blasting, which means it produces neither noise, dust, nor vibration emissions and can therefore also be used close to residential areas and nature reserves. “Avoiding blasting means avoiding danger,” says Robert Bauer, Director of Mining Division – North America, at Wirtgen America.

Good for the environment and good for the customer – the Wirtgen Group continues to rely on solutions for Road and Mineral Technologies that benefit both. After all, sustainability is not simply a passing fad, but is firmly entrenched in the group's corporate principles. This is how the group plays a key role over the long term in enhancing mobility and conserving resources during the extraction of useful minerals and building materials – and does so in harmony with nature. ■



added recycled material is possible with Bennighoven's hot recycling solution.

JOHN DEERE: 2022 SUSTAINABILITY GOALS

Commitment

John Deere is committed to the success of those whose work is linked to the land. John Deere's sustainability goals, which are set forth below, reflect this commitment and the need to protect the most valuable resources - people and the environment. The Wirtgen Group supports these goals.

**Commitment to Sustainable Energy Use**

Reduce GHG emissions by 15% through 50% renewable electricity supply and excellence in energy efficiency.

**Commitment to Use Water Responsibly**

Implement water best management practices in 100% of water scarce manufacturing locations.

**Commitment to Sustainable Products**

Reduce environmental impact, including CO₂e emissions, on 90% of new products. Increase the use of sustainable materials by growing remanufactured and rebuild sales by 30% and by increasing recyclable, renewable, and recycled content.

**Commitment to Increase Recycling**

Recycle 85% of total waste.

**Commitment to Occupational Safety**

Achieve safety excellence through increased focus on leading indicators, health & safety management systems, and prevention.



Domenic G. Ruccolo is CEO of the Wirtgen Group. He works in Windhagen, Germany.

INTERVIEW: DOMENIC G. RUCCOLO

A Passion for Real Progress


Domenic Ruccolo draws a positive conclusion for his first six months in office as CEO of the Wirtgen Group and gives an exciting outlook on the opportunities offered to the company by its integration into John Deere.

Six months as CEO of the Wirtgen Group - what's the verdict?

I have been familiar with and have admired the Wirtgen Group for 27 years - ever since I've been in the construction industry. Wirtgen and Deere have common distributors and common customers in many different countries around the world. The feedback I received from the field about Wirtgen products and employees during all those years was always very positive. That's why I held a very high opinion of the company right from the beginning, and can now say that my initial impressions far exceed my original assessment. All of the employees are very open-minded, capable, and extremely motivated. At the Wirtgen Group, the employees work with an unprecedented level of efficiency, determination, and focus on solutions. Leading this kind of organization makes every day enjoyable and also pushes me to do my best.

What do you think is the Wirtgen Group's secret to success?

The employees' passion to do everything in their pow-

er to guarantee their customers' success at construction sites around the globe. The value proposition "Close to our customers" drives the entire organization. The employees not only know **WHAT** they are doing and **HOW** to do it. They are successful because they also know **WHY** they are doing it. There is no such thing as innovation for innovation's sake here - instead it serves one purpose: to guarantee customers' business success and the sustainable operation of construction equipment at the world's construction sites. The Wirtgen Group's customer service solutions support this goal. And the fascinating thing in this regard is that the Wirtgen Group's customers are an essential part of the company's success story. This is because in our group of companies, advancements are developed together with the customers. The Wirtgen Group is the customers' partner and the customers are the Wirtgen Group's partners. This powerful entity sets the pace for the entire industry. Leading road construction solutions are the result of this unrelenting drive. In this context, the international character of the overall organization helps considerably. Solutions that are not yet known in some markets are already 

being used profitably somewhere else. New ideas are generated everywhere. Sometimes customers in the most remote regions of the world come up with things that could even help countries with a more advanced infrastructure.

Do you see parallels between the Wirtgen Group and John Deere?

In many areas, the Wirtgen Group's customers are the engine driving infrastructure expansion. Streets make remote areas accessible, they allow hundreds of thousands of commuters to make their way into the world's megacities, they connect communities, cities, and countries. Streets drive progress and foster economic growth by creating the required infrastructure.

John Deere is committed to those linked to the land. Those that cultivate and farm the land. And those that build on it. We firmly believe that by serving these people, we help improve the quality of life of people all across the globe. We know the world faces two major challenges in coming decades:

1. Feeding a population growing in size and affluence.
2. Developing the infrastructure required to support massive urbanization.

Together with the Wirtgen Group, John Deere has a one-of-a-kind position from which to support our customers in meeting both of these challenges. So it's more than a parallel. It's a common goal. That's

why the Wirtgen Group is a perfect fit for John Deere and that's also why Jürgen and Stefan Wirtgen decided to put the future of their company in our hands. The question of the WHY is the same at both of our companies.

What is your assessment of the Wirtgen Group's factories/manufacturing facilities?

I'm impressed – the modern manufacturing facilities, efficiency of the processes, and particularly the employees' special spirit are all very impressive. The main facilities in Germany are all completely focused on their respective technology. The employees are highly specialized. The Wirtgen Group's main factories in Germany are the epitome of efficient factory design and optimum production processes. The Wirtgen Group's international facilities are focused on the model ranges for each of their specific markets, and the standards in the factories in Brazil, India, and China correspond to the German facilities they are modeled on. We are currently building a completely new facility for the manufacture of asphalt mixing plants for Benninghoven, and this factory will also be the most modern of its kind. The ongoing new construction and expansion measures in the other main facilities are far-sighted investments to give the factories the capacity they need to handle the expected growth.

How will things now proceed under your leadership?

Domenic G. Ruccolo: Above all else, with continuity. My mission is definitely not to change things, but instead I and the entire Deere & Company management team want to maintain and continue existing structures that have proven to be very successful. The Wirtgen Group – with all of its locations, its brands, products, technologies, its highly effective global sales and service network, and above all, its specialized employees – is an extremely successful entity and that is not going to change. Being part of Deere & Company opens up great new opportunities for us, and it is our joint task to leverage the resulting synergies. Together with all employees of the company, I will drive its sustainable future growth step by step.

What is your assessment of the Wirtgen Group with regard to Corporate Social Responsibility (CSR)?

I have never come across a company so modest about its commitment to sustainability as the Wirtgen Group. It operates the industry's most state-of-the-art production facilities, has the most environmentally friendly road construction technologies, and utilizes innovative mechanical engineering and economical drive concepts. The company offers its employees attractive jobs and the employees go above and beyond in their service to the company, its customers, and society as a whole – including outside of their normal working

Domenic Ruccolo is enthusiastic about the high vertical range of manufacture in the main plants of the Wirtgen Group.



hours. The only weird thing is that no one talks about it! I hope this issue of FORUM emphasizes that the Wirtgen Group makes a considerable voluntary contribution to sustainable development that goes far beyond the legal requirements.

I am very happy about that, because John Deere is committed to reducing its environmental footprint worldwide and has developed a set of eco-efficiency goals to do so. We are committed to the success of our customers whose work is linked to the land. That is why we take our responsibility for safeguarding the environment seriously. We offer products that are efficient and effective and minimize environmental impact. We also design, build, and support those products in offices, factories, and dealerships that are built and maintained with the environment in mind. We're constantly on the lookout for opportunities to reduce our energy and water consumption, increase our waste recycling rate, and improve our air and water quality systems.

How would you assess the performance of the Wirtgen Group under the umbrella of John Deere over the medium term?

Domenic G. Ruccolo: When two market-leading, strong companies merge, the result can only be mutually beneficial. John Deere and the Wirtgen Group are going to continue the success story simply as a result of experts from each company discussing their ideas and experience and thanks to products that complement each other perfectly.

Deere has been around for 180 years. In our fast-paced world, a company with that long a tradition is usually a sign that the company knows what it's doing. And as such, Deere's goal is to give the Wirtgen Group a stable framework which makes it possible for the company to achieve further sustainable growth on

its own. As an organization with 70,000 employees, Deere offers the Wirtgen Group a wide range of different options that it can pick and choose as desired. The Wirtgen Group will decide for itself what it needs and where it makes sense to collaborate. And the other way around, the Wirtgen Group will promote the lasting success and further development of John Deere's Construction & Forestry Division – an exchange of ideas and experience among experts on an equal footing will make that possible, I'm certain of it.

What would you like to say to the Wirtgen Group's customers?

Domenic G. Ruccolo: The Wirtgen Group is still the exact same company it was before the official merger with John Deere. Our products, technologies, services, and your personal contacts at our organization are all the same as before. You can be certain that our customer focus and our desire for you to be successful at construction sites around the world remains the same and will stay that way in the future. We are here for you and want to continue working with you to drive progress. Nothing pleases us more than when you successfully carry out infrastructure projects in all four corners of the globe. That is why we show up for work each and every day. And that is exactly what will drive us in the future. ■

Deep insights into the machine technology are provided by the training programs in the Wirtgen Group.



PART 2: SPARE PARTS SERVICE

A Perfect Fit

Wirtgen Group original parts are precisely tailored to the requirements of our machines and stand out thanks to their long service life. To ensure that our customers' production equipment is always ready for use, our employees around the world are committed to ensuring that our spare parts are rapidly available.

**Additional Customer Support Topics:**

[Part 1: Workshop Service/
FORUM 54](#)

[Part 3: Construction Site Service](#)

[Part 4: Applications Consulting](#)

[Part 5: Training](#)

[Part 6: Service Agreements](#)

At the Wirtgen Group, service and customer satisfaction are top priorities. To keep our machines running at their best, the use of genuine spare parts is absolutely critical. In order to keep downtimes as low as possible, we must quickly identify the spare parts required and send them to the customer. Large warehouse capacities and sophisticated logistics within the Wirtgen Group ensure that our spare parts are always available and can be delivered quickly. To achieve this, our customer support employees around the world are committed to helping our customers, even beyond normal office hours.

Parts and More for Every Eventuality

The Wirtgen Group offers the largest selection of mobile road construction equipment on the market. This means that we have a great deal of experience with the wear properties of machine parts. Our 500-page Parts and More catalog contains the most common spare parts for Wirtgen Group machines. Its outstanding ease of use makes it a unique tool in the industry. In addition to a comprehensive overview of the Wirtgen Group’s original parts, Parts and More offers a range of other valuable information. “The Parts and More catalog is revised annually and new machine types and parts are added. In addition, the various subsidiaries offer attractive special offers where our customers can benefit from very competitive rates,” says Dr. Ralf Schug, head of customer support at Wirtgen GmbH.

To ensure that the desired part reaches its destination quickly and reliably, the Wirtgen Group maintains a basic stock of the most frequently required spare parts and components worldwide. Thanks to many years of experience in supplying spare parts, Wirtgen can estimate and anticipate demand perfectly.

Always the Right Part

With the comprehensive documentation tool WIDOS, the Wirtgen Group takes this one step further. Here you will find all of the available spare parts, equipment documentation, and much more. For a license fee of only 60 euros per year, WIDOS users have online and offline access to circuit diagrams, operating instructions, and all associated equipment documents at any time. Monthly updates ensure that the system is always up to date. Together with the technical consultants from the Wirtgen Group’s Cus-



Only Wirtgen Group genuine spare parts are used for maintenance and repairs in our workshops worldwide.

At the Wirtgen Group locations, employees are always on hand to ensure prompt delivery of the required spare parts to customers.



Well-stocked spare parts warehouses worldwide and modern logistics systems ensure customer orders are processed smoothly and quickly.



Genuine Wirtgen Group filter elements ensure that engines have a longer service life.

The Wirtgen Group’s service specialists are known for their focus on customers and reliability. They also assist in the installation of spare parts at construction sites.



tomers Support team, a defective part can be quickly identified using WIDOS. With a simple click, an order can be placed directly from the system. “WIDOS is a must for every customer who has a Wirtgen Group construction vehicle in their fleet. It’s great as both a convenient way to order and, of course, as a reference book and self-help tool,” says Dr. Schug. Around 8,000 customers are currently taking advantage of the many features offered by the Wirtgen Group’s documentation system.

The fact that the Wirtgen Group’s Customer Support staff document all equipment damage and repair options directly in WIDOS is a major benefit for our customers. With this growing pool of knowledge, the experts can provide rapid assistance as soon as it’s needed.

Compact Extra Knowledge

The Parts and More Compact brochures, which customers receive directly with their equipment delivery, provide additional information on various Wirtgen Group genuine spare parts. They can find out about the most important wear properties, how damaged components interact with one another, and their proper maintenance in a total of nine different languages. Both the Parts and More catalog and the Compact brochures are available around the world at any time. With the combination of Parts and More, WIDOS, and the Compact brochures, customers are always equipped with everything they need to quickly and easily order spare parts. In the event of unanswered questions or any other concerns, our Customer Support team, technical consultants, and spare parts advisors are always available to help. This is how the Wirtgen Group lives up to its motto “Close to Our Customers” when it comes to spare parts as well. ■



WIRTGEN GROUP TELEMATICS AND ON-SITE SOLUTIONS

Big Data

The Wirtgen Group supports fleet and service management for Wirtgen, Vögele, and Hamm equipment with the intelligent WITOS FleetView telematics system. WITOS Paving even optimizes paving processes in road construction.

In 2008, the number of things connected to the internet exceeded the number of people on Earth. The term Internet of Things was coined. By 2020, there will be 50 billion connected things.

And we are already connected with our “things” today – our cars, cell phones, and even refrigerators have embedded sensors, software, and network connections that allow us to stay connected in ways we couldn’t have dreamed of 15 years ago. This connectivity has led to massive amounts of data, and it not only affects everything we do as consumers, but is also impacting changes in the road construction sector. With WITOS, the Wirtgen Group’s customers benefit from the big data generated by Wirtgen Group equipment. The Wirtgen Group not only connects its customers with their construction equipment but also with their construction projects.

WITOS FleetView

WITOS FleetView offers a wide range of features for managing the equipment fleet that can be used to increase the construction equipment’s degree of utilization and reduce fixed costs. Special emphasis was placed on an intuitive user interface and an efficient method of scheduling. From a technical perspective, WITOS Ready – a data communications package consisting of a Telematic Control Unit (TCU), an antenna, and a SIM card – is needed to use the system.

WITOS FleetView is the fleet management system’s core module. The entire fleet of licensed machines is listed in the fleet overview. The information provided includes all of the relevant master and operational data as well as the equipment’s current location and history.

The malfunction view displays a list of all of the errors reported by the machinery. In addition to the error code, the system records additional information about the possible cause so that specific corrective actions can be taken. Every incident is logged in the histo- ➤

ry view, and all of them can be accessed and viewed at any time during a machine’s entire life cycle.

Customers Benefit from WITOS

Anti-tampering protection alerts the user as soon as a machine is not switched off after a defined period of time or is removed from the permitted area of operation. FleetView informs the user of the location and condition of the machines at any time and from anywhere. This means that the entire fleet of machines can be located with a single click and at a glance. Theft or vandalism are not only detected, stolen machines can also be found. The scheduling and planning processes are streamlined thanks to the precise location reports, eliminating unnecessary machine transports.

For example, WITOS users can see the water and fuel levels of their machines. In combination with the machine’s real-time location, refueling is easy to schedule and optimize. If different operators or drivers share a machine, they can easily find their machine via WITOS when coming back to work after the weekend, for example, and do so without disturbing their colleagues who have off.

By reviewing operational data such as engine loads and routes driven, customers can review, improve, or confirm that their project plans are on track. If necessary, additional machines and resources can be scheduled for specific jobs.

Increase Efficiency

WITOS FleetView simplifies the entire maintenance process and noticeably frees the user from tedious routine work during day-to-day operations. The detailed error messages provide the user with information for proactive maintenance as well as the means to directly contact Wirtgen Group locations or dealers. In addition, the system “reminds” the user of upcoming maintenance, allowing them to schedule service appointments in a timely manner and minimize downtime. The website provides access to maintenance documentation with just a few clicks.

WITOS can also be linked to a SmartService service agreement. Wirtgen Group service technicians can then access the equipment’s maintenance and repair data online, making maintenance work even more efficient. This improves

response time and reduces downtime in the event of a machine failure.

WITOS Paving Optimizes Processes and Increases Quality

Increasing cost pressure and demands for higher paving quality and roads with a longer service life make it increasingly important to tap unused potential in the construction process. This is exactly where WITOS Paving comes in. The Vögele solution for process optimization and documentation improves planning and increases transparency, thereby facilitating a more targeted and rapid response to disruptions in the main asphalt paving processes.

WITOS Paving connects the mixers in the asphalt mixing facility, the truck drivers at the transport company, and the entire paving team on site with each other. The system provides planners and

site managers with a comprehensive overview of the current construction project. Because all data is available in real time, everyone involved can react more quickly and effectively to deviations from planning and malfunctions.

And the best thing is that WITOS Paving is constantly learning – just like the construction companies that work with it. After completing a construction project, the projects can also be analyzed and documented with WITOS Paving, and the collected data can be used to gain insights that in turn can be used to improve future projects. As a result, working with WITOS Paving will significantly increase the overall profitability of road construction projects over the medium and long term.

Synergies with John Deere

“Telematics solutions have long been used in the agricultural sector and John Deere

offers a proven solution in the construction sector, JD Link. It goes without saying that we are leveraging our experience at John Deere to the benefit of the Wirtgen Group – and conversely, we are also gaining valuable insights into the Wirtgen Group systems’ levels of development. The exchange of ideas and opinions between experts from both companies all but guarantees the further development of innovative technologies at both companies – to the benefit of our customers,” explains Tammo Wagner, Manager Technology Partner Integration at John Deere.

This means that development is ongoing – and that the Wirtgen Group’s customers are benefiting from the opportunities offered by big data solutions in the field of construction equipment as well. ■

- > www.wirtgen-group.com/witos
- > www.voegel.info/witos-paving

WITOS Paving is Vögele’s solution for optimizing road construction processes.




The WITOS Paving mixing plant module ensures that construction sites are supplied dynamically on a just-in-time basis.



The WITOS Paving transport module calculates the expected arrival time of the mixing trucks based on real-time location data.



The WITOS Paving job site module is the heart of efficient process management during the construction process.



ROAD TECHNOLOGY DAYS

Focussed

The focus of this year's international industry event held by the Wirtgen, Vögele and Hamm brands was on synergies, 3D applications and networked job site processes. The climax of the event was the live machine demonstrations. Host 2018: Vögele in Ludwigshafen.



“Our drivers also want oscillation from Hamm. This is very important, because we need good staff. We have to inspire the young people with the machines. This is only possible with modern machines that the drivers like. And that is what we find here.”

Guus Franssen,
Asfaltbouw,
The Netherlands



“I’m here to learn about the latest technologies. One of my main focuses is recycling solutions. And the machines are perfect in terms of concept and quality.”

Quang Huy Tran,
Ministry of Transport,
Vietnam



Synergies powered by Wirtgen Group:
The live demos convey the motto of the Road Technology Days.



The tour of the Vögele plant delighted the trade visitors.

When no less than three global market leaders present their latest technology, it’s bound to draw the crowds: some 4,000 customers and road construction experts from more than 100 countries flocked to the Road Technology Days held by Wirtgen, Vögele and Hamm on 19 and 20 April. On the 370,000 m² site of Vögele in Ludwigshafen am Rhein, the three companies of the Wirtgen Group’s Road Technologies business sectors provided practical insights into the latest developments in the fields of cold milling, cold recycling, soil stabilization, paving and compaction. In addition to specialist lectures by selected experts and tech-



The CTT technology centers provided in-depth insights into Wirtgen, Vögele and Hamm technologies.

nology exhibitions, visitors were also able to enjoy live demonstrations, factory tours and a machinery exhibition featuring around 70 exhibits. The high point of the event was a gala evening in the newly constructed 22,200 m² dispatch hall at the Vögele brand headquarters. “A personal and professional exchange with our international customers is very important to us,” says Domenic G. Ruccolo, CEO of the Wirtgen Group. “That’s the only way we can develop tailored country- and customer-specific solutions in an industry with such diverse and highly differentiated requirements. This makes the Road Technology Days an ideal platform for exchanging knowledge and experiences.” Since 2005, the event has been held alternately at the brand headquarters of cold milling specialist Wirtgen, road paver manufacturer Vögele and roller manufacturer Hamm. ➡



“In Switzerland, high productivity is important for success. Productivity, in turn, needs innovation, and this is what you will find here at the Wirtgen Group. Furthermore, I know from my experience of the past years that the machines have a high intrinsic value.”

Urs Kordeuter,
Head of Central Purchasing and Fleet Management
KIBAG Management AG,
Switzerland



“Here in production it becomes apparent that we are at a very high level of quality. It can’t get much better.”

Sylvia Bäuerle,
Managing Director,
HAAG-Bau GmbH/
HSE-Bau GmbH,
Germany



“The products are very environmentally friendly and at the same time very economical solutions. Of the new machines, I particularly like the Hamm HD+. These rollers are economical and environmentally friendly. And that’s what we need.”

Nikolay Loginov,
TRUD, Russia



“We are totally impressed with the factory here. This is really the latest technology and the most modern equipment is created.”

Ravi Gutty, Vice
CEO, Gamma
Construction Ltd,
Mauritius



Take a seat and try it out:
Easy Drive makes compacting easy.



The machinery on display encompassed
around 80 Road Technology machines.



The Wirtgen Group experts also
provided special presentations of
special machines at the customers’
requests.

The best of three worlds

At this year’s Road Technology Days, the focus was very much on the interplay between milling, paving and compaction technologies and the corresponding synergy effects for road construction contractors. Inspired by the slogan “Synergies powered by Wirtgen Group”, Wirtgen, Vögele and Hamm showcased coordinated machine and application technologies in operation: a total of 25 machines milled, fed material, placed asphalt and compacted on an area of around 3,000 m² in two live demonstrations. “In the live demonstrations, we’re not just presenting state-of-the-art technology and solutions for road construction: our customers also see for themselves how the machines of the Wirtgen Group work together in practice and the synergies this creates for the entire road construction process. That’s why the live demonstrations have always been a key feature of our Technology Days and why they’re unique in our industry in terms of both their form and their scale,” says Roland Schug, Head of Marketing at Vögele, who has overall responsibility for this year’s Road Technology Days.

Digital measurement and control

Modern road construction demands high precision, perfect quality and efficient processes – which is why the Road Technology Days also offered insights into digital measuring and control systems. Wirtgen, Vögele and Hamm demonstrated the latest 3D solutions in two technology presentations. The SP 15 slipform paver from Wirtgen, for instance, can pave even the smallest of radii entirely automatically thanks to the GPS-based Autopilot. The 3D Navitronic Plus solution from Vögele, meanwhile, allows the layer thickness, the screed’s position and the paver’s direction of motion to be controlled automatically. And the HCQ system from Hamm measures the most important compaction parameters and shows the roller operator directly on the display where more compaction is required. Such applications save a lot of time and money – while also enabling precise implementation and high quality. ➡



“I work in the Bombay region and have had asphalt pavers from Vögele since 1999. My practical experience shows that these products are extremely reliable. In addition, there is a good after-sales service and good operator training.”

Shrinivas Nagarkar,
Technical Director,
Markolines Traffic
Controls Pvt. Ltd.,
India



“I was totally impressed by the Vögele factory. This creates confidence in the quality we will receive on the construction site.”

Kenneth Darkey,
DEM, Ghana





Evening event in the event hall



Exhibition Customer Support



Specialist lectures



Special exhibition "On the trail of quality"



**Special exhibition
"On the trail of quality"**

End of plant tour

Specialist lectures

Wirtgen Group Forum

Exhibition Customer Support

Customer Center

Event hall

Wirtgen Group Event Center

Machinery and Theme Park

Wirtgen Group Plaza

Late-Night-Show

Wirtgen Group Arena

Technology presentation

Demo area 1

Factory tour

Meeting point: material store

**Special presentation
of special machines**

Demo area 2

Live-Demos

Wirtgen Group Arena

**Wirtgen Group
Technology Centers**

CTT - Centre for Training
and Technology



“For us, Vögele is by far the best brand in comparison to all other pavers.”
**Teresa Nuss,
M. dos Santos & Companhia S.A.,
Portugal**



“During a tour of the plant, I was impressed by how well everything is organized here. Excellent logistics are required. The precision of the tools used to manufacture the machines is also remarkable. Last but not least: It is very quiet in the factory despite the many people. These are all signs that products of the highest quality are really being produced here.”
José Jorge López Urtusuástegui, Ingenieur, TRA Senda Ingeniería S.A. de C.V., Mexico



A strong team and strong performance at the live demos in the Wirtgen Group Arena. Thanks, guys!



The late night show in the Wirtgen Group Arena was a firework of innovations.

Intelligent solutions for road construction

Specialist lectures by selected experts and technology exhibitions also gave visitors an overview of current and future developments in road construction. Wirtgen presented precise levelling, cost-effective cutting and advanced recycling technologies, while Vögele presented the software-based process management system, WITOS Paving. The telematics solution networks road pavers, mixing plants and trucks, among others, supporting a perfectly coordinated supply of mix. All the players involved have real-time access to all data such as machine operating data and truck loading and unloading times, allowing them to coordinate all processes precisely. Hamm demonstrated intelligent solutions for compaction, including the intuitive Easy Drive operating concept and the principle of oscillation, where tangential rather than vertical shearing forces are directed into the material to be compacted. The drum maintains constant ground contact for particularly speedy compaction.

Quality creates quality

Apart from presenting cutting-edge technologies, machinery and a sector outlook, the Road Technology Days also offered a glimpse behind the scenes at Vögele – the most modern road paver factory in the world. Visitors were able to explore the production facility, built in 2010 and currently being expanded with a dispatch hall and additional production facilities, on a tour covering a total of 18 stations. An interactive special exhibition entitled “Quality Management” also used display panels, videos and exhibits to demonstrate what requirements the components have to meet and what controls they have to pass through on the way to final assembly and delivery to the customer. “Quality in road construction begins with us,” says Bernhard Düser, member of the Board of Directors of Vögele. “Only with perfect and technically sophisticated products can our customers build high-quality roads.” ■

➤ www.wirtgen-group.com/rtd2018



“16 years ago I bought the first Wirtgen cold recycler WR 250. The devices are really first-class - also in terms of environmental protection, which is a big issue for us. Cold recycling is exactly the technology we need in China.”
**Xia Xinan,
Managing Director
Xi'An Huian Road Bridge Engineering
Co. Ltd, China**



Process optimization in asphalt construction - clearly simulated by WITOS Paving.



“Our season is short - 80% of the work is from May to August. The machines have to run reliably. The supply of spare parts is then particularly important and works really well.”
**Ingvar Torfason,
Polier, Colas Iceland, Iceland**



LOOKING BACK: INTERMAT 2018, PARIS

Innovation Straight Down the Line



The Wirtgen Group's booth was primarily visited by interested parties from France and North Africa.



The Wirtgen W 150 CFi cold milling machine with a 1,800 mm milling drum assembly was presented for the first time at **Intermat**. With the new, wider milling drum assembly, the compact cold milling machine with an application-optimized machine transport weight offers an extended range of applications and impresses thanks to its increased productivity and area output. The W 150 CFi was also accompanied by some other "colleagues" from the small and large milling machine classes, giving visitors a good cross-section of Wirtgen's range of cold milling machines.

The Vögele highlight was the innovative, contactless RoadScan temperature measurement and control system, a solution that plays a key role in improving paving quality. This system attracted numerous visitors, as did the company's road pavers: the SUPER 800-3i from the Mini Class, the wheeled SUPER 1303-3i from the Compact Class and the

tracked SUPER 1800-3i from the Universal Class, as well as the Highway Class SUPER 2100-3i and the state-of-the-art MT 3000-2i Offset PowerFeeder feeder.

Hamm also brought a world premiere to the trade show - the GRW 280i pneumatic tire roller with an enhanced ballasting system. The HD+ 90i PH tandem roller with the extremely environmentally friendly Power Hybrid drive was also presented to the public for the first time in Paris.

The Kleemann MOBICAT MC 120 Z PRO jaw crusher celebrated its trade fair premiere and the innovative SPECTIVE control system also attracted many visitors.

Last but not least, Benninghoven presented its newly developed and patent-pending alternating chute unit, which is extremely maintenance-friendly due to its purely mechanical design, but guarantees reliable operation anywhere in the world. ■

► www.wirtgen-group.com/intermat



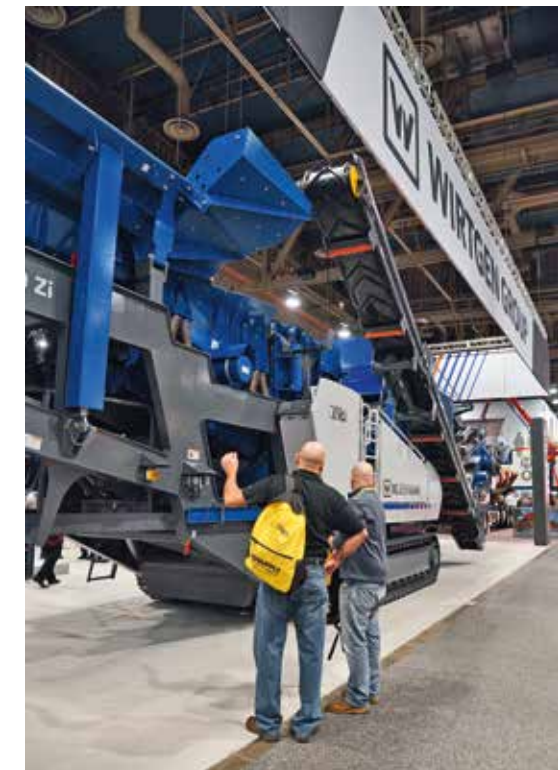
IN-DEPTH DISCUSSIONS

Although each trade show is different, one thing always remains true – visitors show a particular interest in speaking about subjects in-depth with the Wirtgen Group's experts, all of whom have significant real-world experience. For the Wirtgen Group, however, in-depth conversations with customers and interested parties are simply par for the course – after all, a strong focus on our customers and a partnership as equals are essential components of our corporate philosophy: Close to our customers.



Visitors to the **World of Concrete** exhibition had a chance to see the US premiere of the SP 62i inset slip-form paver. The economical two-track concrete paver, which can lay concrete surfaces up to 7.50 meters wide and up to 450 mm thick with extreme precision, was joined

by the flexible TCM 180i for the professional after-treatment of extra-wide concrete slabs as well as two specialists for paving high-quality monolithic profiles, the SP 15i and SP 25i. For recycling, including of concrete, Kleemann presented its MOBIREX MR 130 Zi EVO2 impact crusher with the new, innovative SPECTIVE control system.



At the **World of Asphalt**, the SUPER 2000-3i and SUPER 1703-3i pavers from Vögele, which are specially tailored to the American market, were a big hit. Wirtgen presented the W 35 Ri, W 120 CFi, and W 210i, exhibiting a representative cross-section of its cold milling machine product

range, as did Hamm with various rollers, including the HD+ 90i PH with its innovative Power Hybrid drive, which was unveiled in the US for the first time. Kleemann's MOBIREX MR 130 Zi EVO2 mobile impact crusher for use with both natural stone and recycled materials rounded out the Wirtgen Group's product range that was on display.



SOCIAL COMMITMENT: HELPING PEOPLE HELP THEMSELVES

Learning on the Street

The "Children in Need" initiative operates a mobile school to teach street children in Cebu City in the Philippines. Education and knowledge are the only way for the children to escape poverty.

i KINDER IN NOT E.V.
Social Commitment

41

aid projects are currently being financed by the "Children in Need" Charity Group (Aktionsgruppe "Kinder in Not" e.V.), which was founded by Gisela Wirtgen in 1983.

The focus of the activities is on educating and providing vocational training to children and young people – because this is the first step towards a self-determined life. Projects concentrate on the following countries:

- The Philippines: Here, the aid projects are located in cemeteries and garbage dumps, in urban slums, and poorly developed rural regions.
- India: In addition to children from the lowest classes, the initiative also supports disabled girls and boys here.
- Brazil: Three day-care centers act as a symbol of hope for street children and kids from HIV-positive families, among others.

➤ www.kinder-in-not.de



In February of this year, I visited our aid projects in the Philippines. It is important that we personally see the work and progress being made on the ground at regular intervals.

In the Philippines, we now support a total of 31 different aid projects. This also includes the mobile school for street children.

The United Nations estimates that there are 100 million children living on the street worldwide. The most common reason that people are homeless is because they have moved to the city from rural areas to try and escape poverty. But without vocational training, these people have no chance of getting a job in the city. In the end, all they have left is a makeshift wooden or cardboard shelter near the dumps or in the slums. Girls and boys stranded in the city without their parents have often left their families because of abuse or violence.

Four years ago, our project partners in the Philippines drew our attention to the afflictions of street children in the port city of Cebu City. A large number of children and young people there live on the streets or in parks on a permanent basis. In addition, there are many young girls and boys, most of whom hang out at meeting points at the harbor and on city squares. Many of these street children do not attend school at all, or at most, only irregularly.

Together with our project partners, we had the idea of developing a mobile school. Four years ago, we bought a bus, converted it, and equipped it with tables, chairs, books, and a wide variety of learning materials. The bus was manned by 1 or 2 teachers and also some students from San Carlos University who were willing to volunteer. Today, the bus continues to travel on workdays to various meeting points in the city's downtrodden areas, wherever street children gather.

The children and young people were first attracted by music, games, and drinks. One by one, the teachers offered the girls and boys an alternative learning system based on the curriculum of the Department of Education in the Philippines. It wasn't easy at the beginning. The children often cannot and do not want to concentrate and are unable to sit in the chairs for long. The better known the school bus became, the more children and young people came who were already in school and just wanted help with their homework.



Soon there weren't enough seats on the first bus and the "Children in Need" Charity Group was asked to finance a second bus.

Around 600 children and young people now visit the yellow mobile school buses, some of them regularly, others only occasionally. During my recent visit to Cebu City, I drove with bus 2 to a bus stop on a busy side street. An estimated 30 families with a large number of children lived on the sidewalk in shelters made of cardboard and iron bars. These families used to live under a bridge, but the water in the adjacent river had risen so strongly due to heavy rainfall that they had to leave and find a new place to live. When I was there, they had been living on the sidewalk for about two weeks. The boys and girls quickly gathered at the bus. The teachers showed them toys, spoke with each child, gave them something to drink, and invited them to a get-together with music and singing the following day.

The next stop was a large square, not far from a main road. About 30 children, roughly between the ages of 4 and 12, were already waiting.

Child labor is part of everyday life. Even the little ones collect garbage, clean car windows, or sell flowers.



Some of the young people got on the bus and started doing their homework under the supervision of a university student.

The teachers asked the smaller ones to line up. This wasn't as easy as you'd think, because some of the children kept getting out of line because they either wanted to move up to the front or to the back. The teacher then sang a song containing the numbers 1 to 10. The teachers use rhymes and songs to help the little ones become acquainted with letters and numbers. At one point a child left because it didn't feel like participating any more. The others, however, seemed to enjoy the lesson. Afterwards the group painted. The teachers and university students were quite exhausted after each stop, because the street children, especially at the beginning, lacked any kind of discipline and education.

Graduating from school is an important step towards a better future.

The teachers proudly reported their achievements. Last year, they succeeded in getting about 20 children enrolled in the public primary school. The good news is that none of these children have dropped out of school yet. These girls and boys still come to the bus in the afternoon when they need help.

Convincing the girls and boys, most of whom live on the streets, of the importance of a school education is certainly a difficult job. We lack the parents' support, who hardly take care of their children at all. Which is why I have even greater admiration for the teachers, whose tremendous dedication and understanding offer the children and young people a chance at a better life. ■



Best regards,

Gisela Wirtgen

Gisela Wirtgen
(Chairperson)
Charity Group
"Kinder in Not e.V."



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The Organization

was founded in 1983 on the initiative of Gisela Wirtgen, is a non-profit organization helping children in need to help themselves, is non-political and non-confessional, maintains aid projects in the Philippines, India and Brazil.

Further Information

> www.kinder-in-not.de



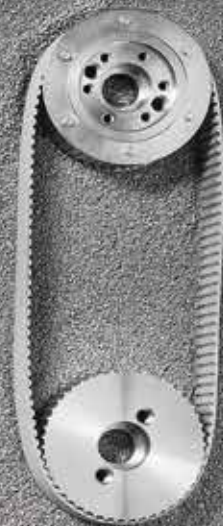
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