

# ENJOY THE SILENCE

AMMAN

eARX 26-2 Light Tandem Roller

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## WHAT YOU GET WITH A RETROFIT

### CAN AN OLD ASPHALT PLANT MEET NEW ENVIRONMENTAL STANDARDS?

In a world where environmental standards are constantly changing, asphalt producers can survive – and even thrive – with the help of a plant retrofit.

A retrofit upgrades an old plant, so it meets new environmental standards – at a fraction of the cost of a new purchase. All projects are managed by the Ammann Retrofit Centre, which relies on proven processes and experienced technicians to troubleshoot any issues and ensure superior results.

#### What can you get with a retrofit from Ammann

- Increased RAP utilisation
- An electrically heated bitumen tank system that is so cost effective it pays for itself in a few years
- Noise levels that are reduced up to 20 dB without an impact on daily production
- An ability to use low-temperature mixes that reduce fuel usage and emissions

Contact us to arrange a free analysis to learn the best opportunities for cost-effective, environmental improvements at your plant.





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### MAKING A DIFFERENCE AFTER THE SALE

#### DEAR CUSTOMERS

The Customer Magazine often highlights product introductions. This issue is no exception, with several innovative compactors featured. (New asphalt and concrete plants were unveiled recently as well.)

Product introductions are, of course, the lifeblood of roadbuilding firms like Ammann. The enhancements provide customers with solutions that bolster their businesses and, ultimately, their profitability.

Yet I am pleased that several articles in this magazine showcase how we are helping customers *after* the sale. It's not enough to have products with built-in value. We must also offer creative methods to make all the key features of our plants and machines accessible to customers – no matter their location or experience level.

These after-sales efforts include a new Remote Support system for asphalt and concrete plants. Should a customer encounter an issue, he need only put on our virtual reality goggles and a safety helmet. Outside experts will be able to see what the customer is seeing and troubleshoot the situation. This provides insight that can eliminate days of plant shutdowns.

The as1 ARGON View, meanwhile, helps new operators quickly get up to speed when learning how to run asphalt and concrete plants. The interface makes the very complicated ... very simple to master.

Providing products with value is essential. Yet so is ensuring customers can benefit from that value. At Ammann, we remain committed to both.

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Hans-Christian Schneider CEO Ammann Group

Cover: Ammann eARX 26-2 Light Tandem Roller Editor: Ammann Switzerland Ltd. | 4901 Langenthal Contact: marketing@ammann.com Materials and specification data are subject to change without notice. GMC-1423-17-EN | © Ammann Group

## AMMANN EXPANDING IN *BOOMING* ZERO EMISSIONS

## THE USE OF ELECTRIC DRIVES IS MORE THAN A TREND

E-driven machines are now an essential part of many jobsites. "In a very short time, as much as 10% of the annual light compaction machine production will be electrically driven," said Bernd Holz, Executive Vice President of Machines at Ammann.

Ammann has fully embraced this change, with the company in the process of launching a number of electrically driven light compactors.

Heavy machinery will also be in the mix. "We will continue to expand in the coming years in the booming zero emission alternative market," said Tomas Kopic, Executive Vice President of Ammann's Heavy Equipment Division.

Some electric-drive products are currently on the market or close to being released. They include the Ammann *e*ARX 26-2 Light Tandem Roller, the *e*APF Vibratory Plate Compactor and the *e*ATR Rammer. While the *e*ARX 26-2 is categorised as "light," the machine has an operating weight of 2640kg – a mark many previously considered unreachable for electric drives.

#### USER FRIENDLY

Hans-Christian Schneider, Ammann's CEO, has set guidelines regarding the electric-drive machines of today and the future. "The compactors need to be sustainable, productive AND user friendly," he said.

The e-drive machines must meet three main criteria. "First, the machines need powerful batteries that enable extended operation," Schneider said. "Second, charging needs to be fast and easy for the crew. Last but not least, the machines need to be user friendly. There needs to be built-in ways to help operators and fleet managers successfully integrate the machines into the fleets. We are confident these new machines meet all the criteria."



IN A VERY SHORT TIME, AS MUCH AS 10 % OF THE ANNUAL LIGHT COMPACTION MACHINE PRODUCTION WILL BE ELECTRICALLY DRIVEN.

68-95

ΛΜΜΛΝΝ



## MARKET



### 3D COMPACTOR

The Ammann *e*APX 68/95 3D Vibratory Compactor is the first vibratory plate on the market that can go in an arc, circle or turn on the spot. The *e*APX 68/95 is so inventive that it was nominated for the bauma 2022 Innovation Award.

Ammann began the development of the machine by asking several questions. What requirements must be met by vibratory plates in order to be prepared for today's challenges, and those of the future? What is essential during operation? What could a completely novel approach bring to plate compaction? And how can sustainability be advanced?



Developers realized existing technology could not provide the needed answers. Ammann therefore completely rethought the concept of the vibratory plate. The result is the battery-powered *e*APX 68/95 prototype – a true revolution in vibratory plate compaction.

#### INNOVATIVE DESIGN

The *e*APX 68/95's appearance immediately distinguishes the machine. It has a low operating height of 700 mm. That height and the machine's ability to move in all directions make it a great fit for trench applications – including those with support systems and cross braces that stop lesser machines. Yet the plate is productive in open spaces, too.

What's beneath the hood might be even more impressive. Four working shafts, in an X shape, combine with a curved base plate to provide the 620 kg compactor with manoeuvrability that no other plate has previously achieved: an ability to go in an arc, circle or turn on the spot.

A remote-control unit dictates the eAPX 68/95's precise movements. At a safe distance, and with the best possible overview, the user has everything under control – even in narrow trenches and other areas that are difficult to access. The operator can easily steer the *e*APX 68/95 precisely along straight lines or hard-to-reach spots.

#### VERSATILE AND SUSTAINABLE

Four battery-powered electric motors enable the machine to work in applications off-limits to combustible engines, including indoors and enclosed spaces. The electric motors also advance sustainability efforts.

The plate can run continuously for approximately 70 minutes before recharging is needed. A 30-minute charge is enough to get the machine back on the jobsite, with more complete charging coming after the shift.

The *e*APX 68/95 utilises lithium iron phosphate (LFP) batteries to maximise safety. The batteries and their advanced management system are particularly robust against high temperatures, overcharging, and mechanical damage.

The future-proof drive requires little maintenance as it has no hydraulics, operating fluids or gears. The low wearand-tear, elimination of fluids and the avoidance of emissions make it a truly sustainable plate – with unmatched manoeuvrability and performance.



## eARX 26-2 LIGHT TANDEM ROLLER

### THIS NEW MACHINE FEATURES A FULLY ELECTRIC DRIVE THAT CAN OPERATE FOR A FULL SHIFT – SOMETIMES BEYOND – WITHOUT RECHARGING

The absence of a combustion engine makes the *e*ARX 26-2 extremely quiet during operation. Sound levels reaching the operation station are 46% less than with a diesel version. The innovative powertrain concept eliminates almost all hydraulic components. The ecological impact is also lessened – and total ownership costs are significantly reduced – by replacing the diesel engine and its cooling system.

#### LONG-LASTING BATTERY CHARGE

The *e*ARX 26-2 is equipped with a powerful battery pack with electric motors for the main drive and vibratory circuits.

The advanced 48-volt battery pack has a capacity of 600 Ah / 31.5 kWh. The pack's LiFePO₄ technology is unique because each internal battery cell is independently protected. This makes the entire pack flame-resistant, increasing safety.

The roller's technology provides extended operation on a single charge. Depending on the jobsite and the demands on the machine, an *e*ARX26-2 can operate up to 18 hours without having to recharge. This means the machine must only be charged once per typical working day, usually at the end of the working shift (depending on jobsite conditions).

All electric drive and vibratory motors are equipped with a recuperation mechanism as standard. When the machine stops, or when vibration is turned off, the electric motors continue to generate power – and send it to the main battery to increase charge.



#### MACHINE CHARGING

The battery can be recharged via the recuperation process during machine operation – or with chargers when the machine is not operating.

Charging is fast, easy, and requires no special tools. Two charging systems are available:

- On-board charger: 50-amp charging system with 12 hours charging time (from 0 to 100% battery capacity)
- External charger: 200-amp charging system with 3.5 hours charging time (from 0 to 100% battery capacity)

The LiFePO<sub>4</sub> battery is characterised by a long lifespan and a high number of charging cycles. The battery is likely to last for the life of the machine.

The operator can continuously monitor battery charge level. An automatic alert is sent via the multi-functional display when charge falls to 10%. If the level drops to 3%, the system automatically disengages the vibrator to conserve power for machine travel to a charging zone.

Ambient operating temperatures are another important advantage. The temperature ranges are wider than Li-ion batteries and other common technologies. LiFePO<sub>4</sub> batteries can operate below the freezing point – specifically from -10 °C (14 °F) – and up to 60 °C (140 °F).

# SUSTAINABILITY

The zero emissions machine is part of Ammann's *e*Mission initiative, which lessens environmental impact and improves economic efficiency.

Products in the eMission programme represent a new chapter in sustainability at Ammann, including reduced levels of  $CO_2$  and a smaller carbon footprint. This becomes increasingly important as emissions regulations become stricter.

The core of *e*Mission is development of a highly innovative power train structure. The new generation of *e*Mission machines also reflects a commitment to minimise maintenance and the total cost of ownership. This includes decreasing the volume of fluids required and making service points extremely accessible. This Ammann commitment –kNown as ECOdrop – makes the latest Ammann products significantly more environmentally friendly.

MMANN

ECOdrop combines with *e*Mission to produce machines that are unique in terms of positive ecological impact, significantly cutting total costs of machine ownership due to:

- The lack of a diesel engine no periodic change of engine oil or filter
- The absence of an engine aftertreatment structure (EGR, DOC, SCR, DPF) – no additional cost or regular maintenance
- The elimination of a DEF tank no filters to be changed, tanks to be cleaned or fluids to leak
- The exclusion of a cooling system no cooling liquid to change
- The use of a maintenance-free articulation joint and vibratory system

   no maintenance needed for the life of the machine
- The reduction of hydraulic oil to 4 litres – only needed for the steering circuit

#### MULTIPLE APPLICATIONS

The machine fits well on sound-sensitive jobsites such as crowded locations, city centres, and historical and residential areas. The *e*ARX 26-2 is a great tool for night work.

The absence of a diesel engine and after-treatment structure eliminates exhaust emissions. Therefore, the machine can work inside buildings and at underground jobsites, such as tunnels.

Intuitive control and easy-to-explain operation are big benefits for those who provide training to end users, for those who rent for a short time, or for lessskilled operators.

#### UNIQUE PERFORMANCE

Electric drive motors also bring more precise control to the vibratory unit. This enables frequency control that is unique to the market. Vibratory settings can be adjusted from 55 Hz to 66 Hz for highquality, efficient compaction output.





## AMMANN SERVICELINK

## A STANDARD FEATURE OF eMISSION MACHINES

ServiceLink is a simple and efficient fleet management method for construction machines, providing comprehensive control of machine data for customer fleets. This method of self-monitoring makes it easy to avoid expensive downtime, evaluates parameters and offers intuitive operation.

## DOWNER UNVEILS ANOTHER LEADING-EDGE FACILITY

AMMANN

AMMANN ABP 320 HRT PLANT HELPS END USERS MEET CARBON FOOTPRINT STANDARDS

THIS PLANT
WILL HELP OUR
CUSTOMERS
ACHIEVE THEIR
ENVIRONMENTAL
OBJECTIVES.

### IT'S CONSIDERED THE MOST MODERN ASPHALT-MIXING PLANT IN AUSTRALIA

#### It can do it all – even help roadbuilders repurpose waste materials whilst lowering the carbon footprint of asphalt production.

"As the time comes to reduce the industry's carbon footprint, this plant, and its related infrastructure, will help our customers achieve their environmental objectives," said Dante Cremasco, Head of Road Services at Downer.

The brand-new Ammann ABP 320 HRT (High Recycling Technology) Asphalt-Mixing Plant utilises Ammann's renowned RAH100 drying drum and can make mix entirely from recycled materials. It has the capability to use up to 100% RAP and incorporate other waste materials – such as glass, recycled print cartridges, soft plastics, and packaging.

At this moment, the market is changing to better address environmental impacts. Higher levels of recycling are progressively being accepted by end users. The Ammann plant has the flexibility to produce the traditional asphalts of today but is also fully equipped to tackle the challenges of the next generation.

"It's significantly advanced," Cremasco said of the plant, which began full operation in Sydney in June 2022. The value of the Ammann ABP 320 HRT, Cremasco said, is "its ability to efficiently incorporate numerous recycling components, while still being capable of producing standard virgin mixes."

Able to supply 320 tonnes per hour, the plant can satisfy highvolume customers. "It's also flexible to service the smaller ex-bin customers at any time," Cremasco said.

Downer chose the batch plant to service the Sydney community because it can quickly change recipes. "With the batch plant, we can minimise waste and improve cycle times and most importantly, service more of our customers' demands," Cremasco said.

Downer is a significant infrastructure services company, with operations throughout Australia and New Zealand. It is engaged in virtually all aspects of roadbuilding and other related industries. It is also acknowledged as a world leader and innovator in finding new, sustainable methods.

Downer commenced planning for a new plant about two years ago. The company explored several options but chose Ammann. The selection was made based on the success of the other Ammann plants it owns – along with the proven collaborative relationship between Ammann and Downer and mutual understanding of the business and industry goals for the future generation.



### BUILT FOR RECYCLING AND FLEXIBILITY

The new plant allows Downer to leverage its years of experience in innovative asphalt products and enable it to efficiently meet the needs of its customers – both large and small.

"Previously, we had six hot asphalt silos, at 200 tonnes each," Cremasco said. "We now have a similar volume in 10 silos. That gives us more flexibility."

The plant has five RAP feeders that provide the flexibility to supply the top drum or go directly to the mixer.

Downer can include up to three different granular additive types in a mix and up to three liquid additives. The facility can vertically store 6,000 tonnes of aggregate and 720 m<sup>3</sup> of bitumen.

The plant is also equipped with oversized silos for reclaimed and imported fillers. "We have about 500 m<sup>3</sup> of fillers available across three separate silos, so we're sure to have the ability to bring the materials in," Cremasco said. "The hot asphalt silos give us the flexibility to store the mix, so we can keep the plant flexible and efficiently change the mixes on the run."

Six aggregate cold feed bins complement the bunker storage system to assist with any specialty mix production or serve as backup. And then there is the preparation of the RAP. "Downer has constructed a highly advanced RAP processing plant immediately adjacent to the asphalt plant that can shred, fractionate and store the RAP so it's ready for immediate introduction into the plant," Cremasco said.

## TIGHTENING STANDARDS

Australia has a goal of carbon neutrality by 2050, with incremental steps along the way. While some targets are voluntary, certain standards must be met in order to do business with the government.

The Downer facility – both the asphalt plant and related infrastructure – can drastically reduce that footprint for customers.

Currently, about 25% of mix produced in Australia has recycled content. "This plant allows us to significantly increase those percentages," Cremasco said. "We're hoping to progressively increase the recycle content to at least 60% in coming years."

Plant emissions are not an issue. "They easily meet Australia's tough standards," Cremasco said.

Downer continues to work on producing high-quality mixes at increasingly lower production temperatures. "More and more foaming will be the result. We're reducing the temperature of products by a few degrees per year." The long-term goal is producing asphalt at ambient temperatures. "We're doing lab trials on that and making progress," he said. A team of scientists has been working on the ambient temperature project for some time.

"The team is really committed. We see the importance of removing heat, and hence energy, from what we do." The reductions of fossil and alternative fuels would be a substantial benefit to the community and the environment and "maybe the shelf life of the product will be improved."

### STARTING OPERATION

At the time of writing, the plant has been operating for over three months. "The erection went smoothly," Cremasco said. "The commissioning went fantastically."

As for the Ammann ABP 320 HRT, "We're understanding the nuances, and how to make it even more flexible."

In particular, Ammann's proprietary as1 Control System has proven to be a great benefit. "The software is intuitive," Cremasco said. "The switch from our old plant to the new was seamless and the team – which had not previously used the as1 Control System – was able to adapt quickly."

"I would challenge any facility in the world to match the quality, processes and innovations we've just completed," Cremasco concluded.

## AMMANN'S REMOTE SUPPORT SOLUTION PROVIDES INSTANT EXPERT GUIDANCE

AMMANN'S NEW, ADVANCED REMOTE SUPPORT SERVICE PACKAGE ENABLES EXPERTS TO CONNECT INSTANTLY TO ONSITE EMPLOYEES, MAKING IT EASY TO GUIDE THEM THROUGH THE NEEDED STEPS

### HOW IT WORKS

A plant team member wears augmented reality glasses, which act as the eyes for off-site experts. With the help of the glasses, the experts see everything the plant team sees. An expert can be from Ammann, available 24/7, or from within the plant team's organization.

The plant personnel and experts collaborate in real-time to determine

what needs further exploration. Troubleshooting is fast and inexpensive, with Ammann experts offering solutions without the time or cost of travel. An additional advantage onsite is the possibility to work hands-free as the glasses are mounted directly on a hard hat.



### USING AUGMENTED REALITY

The system is simple for the plant team to utilise. The glasses arrive ready for use. All that is needed is logging-in with the delivered credentials, an internet connection via WiFi or a hotspot on a smart phone.

The plant team member simply puts on the glasses and is guided by the experts about what areas to probe in more detail. The experts turn the views into actionable plans.

"We're finding this solution to be extremely popular – and extremely effective," said Gleb Polubenko, Technical Support Manager. "I can't overstate the importance of our experts having that direct view. Some things simply can't be explained over the phone."

Many solutions are simple. "The plant team can take on a great deal of the service if they have some guidance," Gleb said. "We are here to walk them through that as well."

More complicated repairs can be completed considerably faster, too. "The diagnosis can be made without travel, which is a time saver. We also can order necessary parts and begin making other arrangements immediately. This can eliminate days of downtime."



## FILIGREE CONDENSED

### PRECISION WORK USING APF VIBRATORY PLATES FROM AMMANN WITH ROUNDED CORNERS FOR SMOOTH CURVES

Enno Klier from the company Schneestern GmbH not only builds pump tracks, sports parks for BMX bikes, scooters or skateboards, he models them – elegantly using the smallest vibratory plate from Ammann, the APF10/33, which he has specially adapted to his requirements.

Such a pump track nestles organically into the landscape with its banked curves, undulations and jumps. You can feel the passion for the sport in the facilities, see the kNow-how that goes into sports parks built by Schneestern GmbH from Bavaria.

And you can see the craftsmanship. The tracks, undulations and banked curves were formed using vibratory plates from Ammann. Four of the smallest plates in the APF series are used, the 54-kg APF 10/33 and the heavyweight of the range, the APF 20/50.

Schneestern GmbH from Durach in the Bavarian Allgäu region specialises in the construction of sports facilities and action parks of this kind. The company was founded in 1999 with the vision of anchoring action sports in society. A little over 20 years later, Schneestern perfectly implements sports and snow parks worldwide – to the delight of younger and older bikers, skaters, scooter riders or snowboarders. Such facilities include the Slopestyle Park in Pyeongchang, which Schneestern built for the 2018 Winter Olympics in China. However, that is only one project amongst many.

#### FROM CHINA TO SCHRIESHEIM

This summer, Schneestern built a sports park in Schriesheim for BMX bikers and scooter riders – currently the largest target group. A pump track with mini ramp and even a fallout loop. Enno Klier, foreman at Schneestern, and his construction crew, implemented the planned pump track using vibratory plates from Ammann.

The Schneestern squad brings a great deal of experience, skill and passion to the construction of the sports facilities and to the sport itself. Enno Klier has already tried out vibratory plates from various manufacturers in the site construction market. The spark to ignite the "This is my working tool" moment was missing – until he hit on the Ammann plates. He and his people have been using them ever since. The robust, manoeuvrable machines bring reliability, quality and durability to pump track construction and won't let the construction crew down.

Schriesheim was his midsummer project – made under a blazing sun in temperatures around 40° C. Together with an asphalt temperature of about 170° C, the whole project was a real challenge for him and his team. "It's better than being too cold," was his comment on the working climate for asphalting.

### SPECIALIST IN PUMP TRACK CONSTRUCTION

A pump track is a track specially designed for BMX bikes or dirt bikes; bikers ride it standing up – without pedalling. The rider accelerates the bike by shifting its centre of gravity from the bottom to the top. The movement is called pumping. Hence the name pump track. If the track finish is asphalt, of course it can be used by scooter riders or skaters.

Pump tracks are built like roads. A base layer of crushed stone is applied and compacted. That is topped by the asphalt layer. Klier is now a specialist for these systems.

First, we rough it out with the excavator and apply about 30 cm of filling to the track, in accordance with the intended profile," he explains. The track is formed by hand and by use of the vibratory plate. On straight stretches or the undulating sections an APF 20/50 from Ammann weighing around 100 kg is used. It is the most powerful machine in the new APF series and has a working width of 500 mm. As always with Ammann, the technically sophisticated exciter unit is maintenance-free. And thanks to the powerful drive, the crushed stone can be compacted excellently, even on banked sections of track.

On the curves, Klier uses the smaller and therefore more manoeuvrable APF 10/33 vibratory plates. They have a total of four of these machines in use. "You have to push the plate up into the banking on the curves, at angles up to 60 degrees at the steepest." Theoretically, this could also be done with the APF 20/50. "But you have to want it," Klier says laconically. The APF 10/33 is the more suitable choice because it is lighter. And Klier achieves the necessary compaction with it.



#### THE FIRST TEST

The track in the form of compacted stone is first tested by the construction team on mountain bikes. They always do this, no matter where in Germany the pump track is being built. You really have to test whether the track works and delivers what was promised. The asphalt layer is not applied until everything is just right; it goes on in a thickness of eight to ten centimetres.

For asphalt work on these tightly banked curves and inclines, Klier relies on the Ammann APF 10/33. Schneestern has tuned the plates to achieve perfection in the modelling of the track. "The adjustments imposed themselves on us gradually," he says. "We changed the angle of the drawbar and bent it. In addition, we added a second handle above the motor."

"These adaptations give me better power transmission and allow me to steer the machine more precisely on the steeply banked sections." The steepest banking Klier has formed so far on a curve was at an angle of 63 degrees. But that might not be the limit. Perhaps there is still room for improvement?

What's clear is that Klier is highly satisfied with the machine. The adaptations and capabilities of the Ammann APF vibratory plates enable him to achieve the desired quality of the pump tracks. For him, it's out of the question to use any other plate. The technical support is also right. Ammann customer service and the plant in Hennef provide support at all times.

#### **GROUND TO A CONVEX PROFILE FOR SMOOTH CURVES**

But the icing on the cake in the field of adaptation is this: Schneestern grinds the base plate so it has a slightly convex profile. This allows banked curves to be modelled smoothly at any angle of banking. Beautifully rounded and organic. Perfect for the athletes and for the loops.

Enno Klier checks over and again by hand that the transitions are correct, the track has no dislocations and is smooth. The small APF 10/33, at 54 kg the lightest plate in the Ammann APF series, is perfectly suited to this demanding shaping work. A curve that is 7-8 metres long is worked on by two track construction specialists. "The first one compacts as pre-work, the second one does the finishing", is how Klier describes the process. "I'll probably go over the same spot 10 times before I get it right." The plates have stood up to the construction of pump tracks – for years.

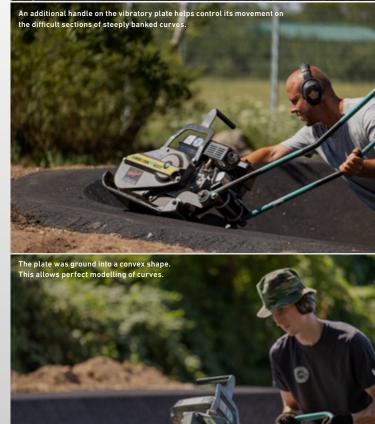
#### PERFECT MATCH: SELF-TAUGHT MOUNTAIN BIKER

Enno Klier is not a landscaper or road builder by trade. He trained as a retail salesman and worked in a bicycle shop; however, he has always had a bent for building things and using his hands. He came across pump track construction through his hobby – cycling and mountain biking. A bike park was built in his neighbourhood, and a friend of his worked there as a freelancer. "I thought it was exciting and simply asked if they needed anyone else," says Klier. That was the beginning of the great passion. Klier has been with the company for four years and has acquired his craft through learning on the job. In that time, he has built around 40 pump tracks, so he now brings a lot of experience to this work.

The Schriesheim pump track is now organically embedded in the landscape. This track focusses on younger athletes who enjoy riding the track with its undulations, banked curves and the loop. Enno Klier, his construction crew, the vibratory plates and the mountain bikes have already moved on to Osnabrück, where he is doing what he loves – building the next pump track.







## MODERNISATION DURING OPERATION

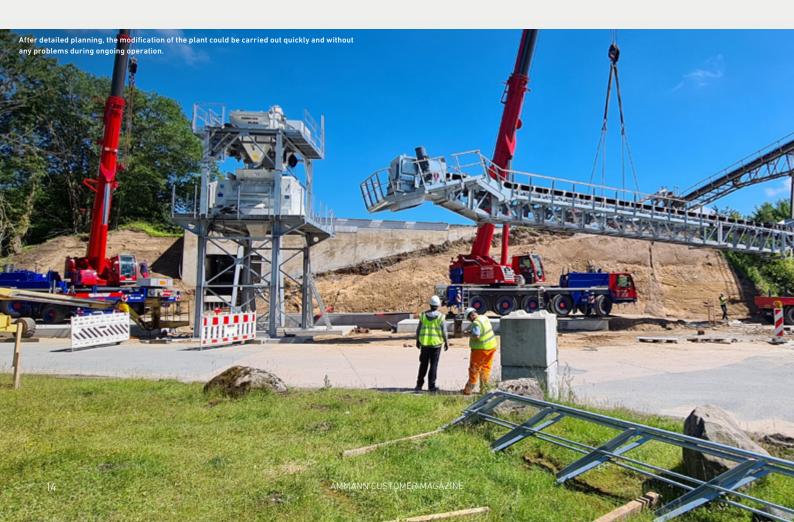


### WITH CAREFUL PLANNING, THE CONCRETE PLANT OF THOMAS BETON, LÜRSCHAU, GERMANY, WAS SUCCESSFULLY MODERNISED DURING ONGOING OPERATIONS

An Ammann Elba CBS 120 SB concrete mixing plant was connected to an on-site aggregate linear bin as the new heart of the plant.

"All I can say is: Drive quickly under it!" When the first 300 m<sup>3</sup> were mixed during the commissioning of the new Ammann Elba CBS 120 SB, B. Rainer Brings, Managing Director of Thomas Beton, was impressed by the speed of the plant. With this new concrete mixing plant, he can now significantly increase his hourly output compared to the old one. Up to 120  $m^3$ /h are now possible.

This increase in output was urgently needed. This was because the demand for fresh concrete had increased significantly due to large foundations for regional wind power plants and a nearby precast plant, among other things. The old plant had reached the limits of its capacity.



#### INTERRUPTION WAS NOT AN OPTION

Two challenges had to be mastered during this modernisation. On the one hand, the existing dosing construction had to be technically integrated into the new construction across the height difference of an escarpment. On the other hand, the plant had to continue production during the modification in order to be able to serve the current orders.

After the stock had been checked, it was determined in detail which components could be replaced and which could continue to be used. "We now operate 12 Ammann Elba ready-mixed concrete plants of this type in our factories in northern Germany," says Brings. "When planning the new plant together with Ammann Elba, we were able to make perfect use of the flexibility of the assemblies."

#### COMPREHENSIVE RENEWAL AND MODERNISATION

The modernisation of the site during ongoing operations took only eight weeks. While the old mixing tower continued to do its job, the new ready-mix concrete mixing plant CBS 120 SB with single-shaft mixer CEM 2660 S was connected to the existing aggregate linear bin as a belt conveyor plant.

The complete locking and dosing technology of the on-site linear bin itself was renewed. A technical masterpiece was the threading of the new 35-metre-long weighing belt into the concrete linear bin. This challenge was successfully solved thanks to the many years of experience of the Ammann Elba dealer Proschwitz GmbH, Trittau, which was also responsible for the overall assembly.

The discharge gates are actuated via compressed air by an integrated screw compressor. The weighed aggregates are finally conveyed directly into the pre-hopper of the mixing plant via a conveyor belt. A sand moisture measuring device below the dosing gate continuously measures the material moisture.

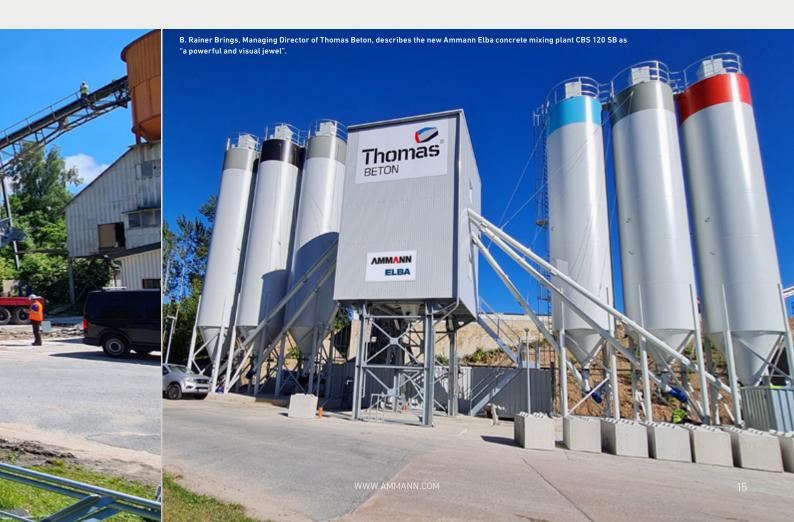
The cement is stored in six cement silos, each with a capacity of 100 tonnes. High-performance cement screws EZL 80/100 are used for dosing in the generously dimensioned cement weigher.

#### A POWERFUL JEWEL

B. Rainer Brings is "completely satisfied with the result. The new ready-mixed concrete plant is an efficient and also a visual jewel." He is also convinced by the uniformly stabilty and high quality of the concrete. Both a dedusting filter system and a mixer cleaning system are integrated in the CBS 120 SB. This prevents contamination. The winter cladding LL 60, which encases the entire mixing plant, also protects against temperature fluctuations caused by the weather.

"From planning to transport and installation, Ammann Elba demonstrated a high level of detailed work," says the Managing Director, summing up the positive conclusion of the modernisation of his plant. "And since our team kNows the Ammann Elba plants very well, we were also able to continue production seamlessly."





## ARX 140 & ARX 160

### HEAVY HITTERS WITH A SOFT TOUCH

Two new heavy articulated tandem rollers from Ammann provide operators with fingertip steering and unparalleled visibility.

### HUMAN MACHINE INTERFACE & INNOVATIVE CAB DESIGN

A new symmetrical cab with 360° visibility from the operator station establishes a new market standard. The cab integrates four ROPS posts directly in the main structure and near the doors, not in the cab corners. The new location improves visibility and safety. The operator's seat is fully adjustable and rotates 270° to optimise visibility from the cab.

#### 10-INCH MULTIFUNCTIONAL DISPLAY

All information is available via a new touchable display in front of the operator for quick monitoring of operational functions and machine settings.

#### **FINGERTIP STEERING (FTS)**

MMANN

Enables operator comfort and precise machine control for optimal accuracy – especially important on tight job sites.

## ARP 75

POUNDS LIKE A HAMMER, FLOATS LIKE A FEATHER

Ammann's new pivot-steer roller carries on its tradition of manoeuvrability while adding unparalleled visibility and fingertip operator control (FTS). AMMANN

The Ammann ARX 140 and ARX 160 Articulated Tandem Rollers, with operating weights of 16 tons, provide 360° visibility from the operator station. Well-designed and positioned fuel and water tanks help improve sight lines to all drum edges and surfaces. The operating width of the ARX 140 and ARX 160 is 2130 mm (83.9 in).

ADJUSTABLE FREQUENCIES	35-50 Hz
COMPACTION OUTPUT	61-136 kN

The machines fit well on a wide range of jobsites but are most productive if used in high volume asphalt applications such as highways, industrial areas or airfields. Their high static "dead" weights are a perfect fit as finishing/ironing static rollers or as a compaction tool for sensitive materials.

#### SERVICEABILITY

Maintenance is faster and more convenient thanks to a highly accessible engine compartment with a robust design that protects all major components. All maintenance and service points are accessible from the ground.

#### **POWERFUL ENGINE**

The rollers are available with engines that meet standards in highly and lesser regulated countries.

The machines need only be fueled once every two shifts because of a large tank, with a capacity of 180 liters (47.5 gallons); a well-balanced hydraulic system; and ECOmode's control of RPM and the reduced fuel consumption it provides.



#### ECODROP

The rollers are designed to be maintenance-free as part of Ammann's ECOdrop philosophy. The focus of ECOdrop is to reduce the volume of fluids required, make service points extremely accessible – and make all new products more environmentally friendly.

> In addition, the Ammann ARP 75 Pivot-Steer Tandem Roller also offers adjustable compaction width due to crab mode, a variable range of frequencies - and plenty of compaction punch. The machine is also available in a "combi" version, with four tyres to increase machine usage on more applications and jobsites.

#### **BUILT FOR HIGH PRODUCTIVITY**

Depending on the unique steering settings, such as off-set (crab) mode, the machine is well-suited for open, straight jobsites, roundabouts and urban areas where steering accuracy is a priority. The standard operating width of the ARP 75 is 1500 mm (59.1 in). To improve machine versatility, "crab mode" (off-set mode) is available. Machine working width can be

#### INTELLIGENT COMPACTION SYSTEM ACE<sup>FORCE</sup> TO TRACK COMPACTION PROGRESS

This measuring system shows the actual kB value on the display and thus significantly lessens the time required to achieve the maximum compaction level.

increased slightly to enable compaction around obstacles – or it can be expanded up to 1220 mm (48 in) to total machine working width of 2720 mm (107 in). This significantly improves machine productivity on long, straight jobsites.

Vibratory system development is driven by Ammann's expertise and produced inhouse, improving quality and durability.

ADJUSTABLE FREQUENCIES	38-55 Hz
COMPACTION OUTPUT	47-92 kN

Steering is precise thanks to a combination of FTS and four steering cylinders – two for each drum. High manoeuvrability results from wide drum turning angles  $\pm 24^{\circ}$ . This provides an exceptional inner radius of less than three meters (9.8 ft). Varied steering ARX 140 | 160



ARP 75

modes are available – front drum only, rear drum only, synchro (where both drums steer) and crab.

Two large water tanks – total capacity of 900 litres (238 gallons) – for drum surface spraying.

#### **POWERFUL ENGINE**

The roller is available mainly for countries with strict emissions regulations and fulfils U.S. EPA Tier 4f and EU Stage V standards.

- Kubota V3307-CR-T diesel engine power output of 54.4kW (74 hp)
- After-treatment technology EGR+DOC+DPF

The machine needs only be fueled once every two shifts because of its large tank, with a capacity of 180 litres (47.5 gallons).

## ARS 30 & ARS 50

## SMALL ROLLERS SUPPLY A WEALTH OF POWER

Two new single drum roller models from Ammann provide an abundance of power in compact packages.

The ARS 30 and ARS 50 are ideal for road construction businesses and rental fleets needing a small, durable, powerful product. The rollers are suitable for compacting a wide range of materials and can be even more flexible, given the smooth or padfoot drum options.

Due to their compaction power and manoeuvrability, the machines are a good fit for small landscaping projects, forest roads, municipal roads and walking/bicycle paths.

The ARS 30 and ARS 50 are equipped with Kubota V2403-CR-T diesel engines with EGR+DOC+DPF (without SCR) aftertreatment technology. Engine power output is 43.2 kW (58 Hp). The engines meet the latest emissions standards (U.S. EPA Tier 4f / EU Stage V).

A combination of a well-balanced engine, fully hydrostatic drive system and control deliver exceptional fuel consumption of 5 litres (1.32 gallons) per hour. That efficiency and a large fuel tank of 98 litres (25.8 gallons) mean a roller needs only be fuelled once every three shifts.

#### NO-REAR-AXLE

The innovative no-rear-axle concept separates Ammann ARS Single Drum Rollers from the competition. Eliminating the rear axle makes the rollers more compact and enables a lower engine location that improves the centre of gravity, providing better stability, even on slopes.



#### COMPACTION PUNCH

Advanced engineering and years of industry expertise are behind the development of the drive system. The drums, designed and manufactured by Ammann, are high quality and highly durable.

	ARS 30	ARS 70
WORKING WIDTH	1200 mm (47.2 in)	1400 mm (55.1 in)
COMPACTION FORCE	37 kN and 68 kN	53 kN and 85 kN

A smooth drum is standard on both machines. The rollers are available with a padfoot (PD) drum (with a smooth shell kit) and a dozer blade.

#### INTELLIGENT COMPACTION SYSTEM ACE<sup>FORCE</sup> TO TRACK COMPACTION PROGRESS

This measuring system shows the actual kB value on the display and thus significantly lessens the time required to achieve the maximum compaction level.

#### FEATURES AND BENEFITS

- Excellent manoeuvrability and traction due to twin-lock drive
- High compaction output
- ECOdrop system for improved efficiency and lower fuel consumption
- ACE<sup>force</sup> Intelligent compaction tool for optimal efficiency
- Unique versatility due to wide range of available options
- Intuitive control and operation, even with unskilled operators
- Ground access to all main maintenance points

AMM

# PLANT USER INTERFACE HELPS NEW OPERATORS

AMMANN'S NEW PLANT INTERFACE ALREADY HAS A REPUTATION FOR HELPING OPERATORS BE MORE EFFICIENT – AND BUSINESSES BE MORE PROFITABLE

Yet an additional benefit of the as1 ARGON View is emerging: The interface makes it easier for new operators to seamlessly step into the business.

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"It's an attractive interface, and it's intuitive," Michael Halada, Global Product Manager Automation, said of the Ammann control system interface for asphalt and concrete plants. "These are key features as the industry looks for the next generation of operators."

Specifically, Halada points to the exceptional plant overview the as1 ARGON View offers. "There are intuitive animations where the important things are bright, and the less important are in the background," he said. "These animations help operators properly track the processes. They make a real difference." Tasks can also be completed via "drag and drop," another intuitive feature that is appreciated by newcomers.

Flex 42.

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Hydr

Argon View

The as1 ARGON View is a recent launch that proved so popular with customers it was quickly elevated to the "standard" status. "It's the most modern user interface in our market, and customers have noticed," Halada said.

Frisch: 1281 3.0% RC: 1571 24.0°C ZM: 21 Fein: 01 Total: 2871



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## SUPPORT AROUND THE GLOBE

AMMANN CONTINUES TO MAKE ITS ALREADY-ROBUST TRAINING PROGRAMMES EVEN STRONGER THROUGH SEVERAL NEW EFFORTS

"It starts with a return to onsite training," said Heiko Gräber, director of After Sales and Service at Ammann. "The pandemic created some significant logistical problems, limiting our in-person training options. We are a global company that serves customers in many countries – with many different regulations."

While Ammann has been on-site in many places for quite some time, the company is now 100% able to visit all locations around the world.

"It's a relief for all of us," Gräber said. "Meeting in-person is the best way to learn what the customers need, to explain the key product features – and of course to demonstrate how to properly operate and service the plants and machines."

Customers are clearly eager for the visits. Recent training took place in Australia, South Africa, the U.S., Chile and Finland. "We are more determined than ever to be flexible and provide the necessary support when and where it is needed," Gräber said.

Still, great strides in remote communication were made during the pandemic. "When appropriate, we will apply lessons learned in terms of remote training," Gräber said. Ammann has also put considerable effort into capturing industry kNowledge from its experts. Product specialists with vast experience in the field have produced comprehensive documents that provide exceptional guidance.

"The goal in creating those documents was to ensure that kNowledge could be consistently passed onto end users, which are the Ammann customers," Gräber said. "Ammann product specialists have seen just about every situation. We've found that what's relevant in one part of the world often applies to another. This ensures that a solution from a particular location can find its way to all our customers, no matter how far away."

The documents also promote consistency of the message. "The experts detail their thoughts," Gräber said. "There is no passing of information from one source to another, and then to another – a process which can result in misinterpretations or lost details. The documents are developed by the product specialist. What the customer sees comes directly from that expert."

Ammann offers training on all its product lines – light and heavy compaction equipment; pavers; and asphalt- and concrete-mixing plants. The company also provides a number of services that help customers operate efficiently and profitably.



AMMANN CUSTOMER MAGAZINE

## 

ROLLER

BOV

Visitors can now stroll through Ammann's virtual showroom and browse for the light compaction equipment they need.

The virtual showroom, which can be found at showroom.ammann.com, offers all the conveniences of an in-person visit. Shoppers can easily navigate from one product to another and review key features.

### ....

Click the chat icon to reach a salesperson.

Questions?

Need more in-depth information? Click another icon to schedule a virtual call.

Brochures, videos and other helpful content are available.

The showroom is well organised, making it simple for shoppers to find the products and information they need.



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## A BAUMA TO REMEMBER



Bauma 2022 in Munich proved to be a highly successful event for Ammann. It was an excellent opportunity to meet and greet customers – and a key platform for Ammann to showcase new products and innovations.

Ammann's theme for the show was "Sustainability. Productivity. Connectivity." The products and services at its booth reflected that commitment. The fair concluded on 30 October, but content highlighting the products and services remains available at **bauma2022; ammann.com**. The website includes product videos, interviews, photos and press releases.

SERVICELIN





### **HENNEF PLANT MARKS MILESTONE**

The 20,000th compaction machine of 2022 rolled off the production line at Ammann Verdichtung in Hennef, Germany, on 27 October. The milestone machine was a fully hydraulic APH 60/85 vibratory plate. In addition, the 10,000th forward-running vibratory plate, an APF 12/40, was produced in 2022. Approximately 24,000 machines were expected to be produced by the end of the year – the highest output ever achieved at the Hennef plant.

### STRONG PRESENCE AT GALABAU

Ammann's sustainable light equipment products were available for review at GaLaBau 2022, an international trade fair for urban green and open spaces.

The fair trade theme was "Working Together for a Climate-Friendly Future." Organisers estimated that 62,000 visitors from 76 countries took part.

The show was held in September in Nuremberg, Germany.





### UPCOMING FAIRS

#### 11 – 15.FEB.2023 THE ARA SHOW

ORLANDO, FLORIDA, USA

The American Rental Association's annual trade show for the equipment and event rental industry

#### 14 – 18.MAR.2023 CONEXPO

LAS VEGAS, NEVADA, KARLSRUHE, USA GERMANY

*The largest construction show in North America* 

#### 27 – 29.APR.2023 TIEFBAULIVE

GERMANY Machine demo and RecyclingAKTIV show

### 3 – 7.MAY.2023

SAMOTER VERONA, ITALY Highlights the key role that the construction equipment industry plays regarding sustainability and the development of the economic models outlined by the New Green Deal

#### 6 – 8.JUN.2023 IRE SHOW

MAASTRICHT, THE NETHERLANDS

The show for equipment rental, compact machinery, and rental IT



events

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