



THE AMMANN GROUP MAGAZINE

# FROM NARROWEST PATHS TO THE WIDEST RUNWAYS

DIVERSE LINEUP OF PREMIUM PAVERS LAUNCHED



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Surpasses Standards

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## TAKING ON NEW CHALLENGES



The new issue of the Ammann Customer Magazine features many examples of how quality plants and machines help our customers succeed on jobsites around the world.

I am grateful that so many businesses count on Ammann to provide value to their customers. These success stories always humble me.

The narratives in this issue also make it clear customers are experiencing success with Ammann products. But it would be a mistake for those of us at Ammann to pause and enjoy such accomplishments for too long.

The world around Ammann and our customers changes by the day. New challenges constantly emerge, and innovative solutions must be found.

This leads us to two other stories in the Customer Magazine. The first, on page 4, offers a look at the new Ammann line of pavers. This new product line provides many choices to customers – including assorted sizes, varied screeds and differing technological features.

Another story, on page 22, focuses on the expansion at the Ammann facility in India. This project has been years in the making and will be ready for an official unveiling in April of this year.

The factory expansion includes retooled manufacturing lines that boast robotic welding and other automated processes to further ensure the quality and reliability of every product that leaves the facility.

The commitments to the paver line and manufacturing facility in India are significant in terms of cost and time. But they are long term commitments to our customers that were important to make.

After all, our customers must continually improve to remain competitive. We must do the same as we join them on this journey.

**Hans-Christian Schneider**  
CEO, Ammann Group

# ADVANCED PAVING TECHNOLOGY



COMPACT PAVER



MINI PAVER



CITY PAVER



LARGE PAVER CLASSIC



LARGE PAVER PREMIUM WHEELED



LARGE PAVER PREMIUM TRACKED

## QUALITY IN ALL SIZES

The new line of Ammann Asphalt Pavers includes 17 diverse models that can squeeze into tight corners – or pound out productivity with 14 metre widths in wide-open spaces.

The common thread through all the shapes and sizes is technology. That includes an industry-leading operating system that automates key functions to provide the consistency and quality you want.

The technology doesn't stop there. It also ensures fuel savings, properly pre-compacted mats, fumes extraction – and even smoother paver-truck exchanges.

When your paving day ends, you'll see higher quality surfaces and lower production costs. Call your Ammann Dealer to find out what shape and size best fits your needs.





## NEW AMMANN PAVERS BUILT FOR ALL JOBSITE CHALLENGES

Ammann Group has launched a new, technologically advanced line of premium asphalt pavers. The machines excel in applications ranging from narrow paths to city streets to wide lifts for roadways and airports.

“With this launch, Ammann shows its ongoing commitment to the roadbuilding segment,” said Hans-Christian Schneider, CEO of Ammann Group. “Our product line of asphalt and concrete plants, compactors and light equipment is highly competitive. The addition of a full line of premium asphalt pavers will extend our extremely strong, complete product offerings. Together with our line of Apollo pavers, we now have the most comprehensive line of asphalt pavers in the industry.”

The paving line is diverse and includes 17 models, with tracked and wheeled versions available. Screed options include tamping/

vibrating, high-compaction and rigid-frame.

There are three major size groups: compact pavers (including the mini paver), city pavers and large pavers.

Compact pavers have production capacities of 300 tonnes per hour and maximum paving widths of 3.1 metres. When space is particularly tight, Ammann offers the unique AFW 150-2 mini paver, with paving widths as narrow as 250 mm.

The four city paver models can place 350 tonnes per hour with maximum widths of 4.7 metres. Their mobility and size make them great tools for urban jobsites and inner city applications where smaller roads need

to be placed fast – and meet the highest quality requirements.

Large pavers can reach 1100 tonnes of hourly production with maximum widths of 14 metres. They are available with conventional controls or with the advanced PaveManager 2.0 system. The machines are well suited to large jobsites where quality, speed and large paving widths are the main focus.

The entire line of pavers will be available through the global Amman dealer network. The specialised dealers will also cover maintenance and repair work, ensuring quality customer support.

## MINI PAVER



**AFW 150-2**

## COMPACT PAVER



**AFT 200-2**



**AFT 300-2**

Weight (including standard screed)	1150 kg (2535.3 lbs)	5900 kg (13 007 lbs)	5800 kg (12 786 lbs)
Emissions	n.a.	EU 3A/3B (T3 / T4f)	EU 3A/3B (T3 / T4f)
Standard working width	800–1300 mm (2.6–4.2 ft)	1200–2400 mm (3.9–7.9 ft)	1200–2400 mm (3.9–7.9 ft)
Max. with mechanical extensions	1650 mm (5.4 ft)	3100 mm (10.2 ft)	3100 mm (10.2 ft)
Screed Options	SB 1300 G	SV 2400 G, SV 2400 E	STV 2400 G, STV 2400 E

## CITY PAVER



**AFW 400-2**



**AFT 400-2**



**AFW 400-3**



**AFT 400-3**

Weight (including standard screed)	10 500 kg (23 148 lbs)	10 500 kg (23 148 lbs)	10 300 kg (22 707 lbs)	10 300 kg (22 707 lbs)
Emissions	Stage IIIA (T3), IV (T4f)	Stage IIIA (T3), IV (T4f)	Stage IIIA (T3), IV (T4f)	Stage IIIA (T3), IV (T4f)
Standard working width	1750–3500 mm, (5.7–11.5 ft)	1750–3500 mm, (5.7–11.5 ft)	1750–3500 mm, (5.7–11.5 ft)	1750–3500 mm, (5.7–11.5 ft)
Max. with mechanical extensions	4700 mm (24.3 ft)	4700 mm (24.3 ft)	4700 mm (24.3 ft)	4700 mm (24.3 ft)
Screed Options	SV 3500 G, SV 3500 E, STV 3500 G, STV 3500 E			

## LARGE CLASSIC PAVER



**AFW 600-2**



**AFT 700-2**



**AFW 600-3**



**AFT 700-2**

Weight (including standard screed)	17 500 kg (38 580 lbs)	17 500 kg (38 580 lbs)	18 000 kg (39 683 lbs)	18 000 kg (39 683 lbs)
Emissions	Stage IIIA (T3)	Stage IIIA (T3)	Stage IIIA (T3)	Stage IIIA (T3)
Standard working width	2550–5100 mm, (8.4–16.7 ft)	2550–5100 mm, (8.4–16.7 ft)	2550–5100 mm, (8.4–16.7 ft)	2550–5100 mm, (8.4–16.7 ft) 3000–6000 mm, (9.8–19.7 ft)
Max. with mechanical extensions	6600 mm (21.7 ft)	6600 mm (21.7 ft)	8100 mm (26.6 ft)	9000 mm (29.5 ft)
Screed Options	STV 5100 G	STV 5100 G, STV 5100 E	STV 5100 G	STV 5100 G, STV 5100 E STV 6000 G, STV 6000 E

## LARGE PREMIUM PAVER TRACKED



**AFT 600-3**



**AFT 700-3**



**AFT 800-3**



**AFT 900-3**

Weight (including standard screed)	18 500 kg (40 785 lbs)	18 500 kg (40 785 lbs)	20 000 kg (44 092 lbs)	20 000 kg (44 092 lbs)
Emissions	Stage IIIA (T3), Stage IV (T4f)	Stage IIIA (T3), Stage IV (T4f)	Stage IIIA (T3), Stage IV (T4f)	Stage IIIA (T3), Stage IV (T4f)
Standard working width	2550–5100 mm (8.4–16.7 ft) 3000–6000 mm (9.8–19.7 ft)	2550–5100 mm (8.4–16.7 ft) 3000–6000 mm (9.8–19.7 ft) 3000 mm (9.8 ft)	2550–5100 mm (8.4–16.7 ft) 3000–6000 mm (9.8–19.7 ft) 3000 mm (9.8 ft)	2550–5100 mm (8.4–16.7 ft) 3000–6000 mm (9.8–19.7 ft) 3000 mm (9.8 ft)
Max. with mechanical extensions	9000 mm (29.5 ft)	10 000 mm (32.8 ft)	12 000 mm (39.4 ft)	14 000 mm (45.9 ft)
Screed Options	STV 5100 G, STV 5100 E, STV 6000 G, STV 6000 E, STVH 5100 E, STVH 6000 E, SFTV 3000 E, SFTV 3000 G			

## LARGE PREMIUM PAVER WHEELED



**AFW 600-3**



**AFT 700-3**

Weight (including standard screed)	18 000 kg (39 683 lbs)	18 000 kg (39 683 lbs)
Emissions	Stage IIIA (T3), Stage IV (T4f)	Stage IIIA (T3), Stage IV (T4f)
Standard working width	2550–5100 mm (8.4–16.7 ft) 3000–6000 mm (9.8–19.7 ft)	2550–5100 mm (8.4–16.7 ft) 3000–6000 mm (9.8–19.7 ft)
Max. with mechanical extensions	7500 mm (24.6 ft)	9000 mm (29.5 ft)
Screed Options	STV 5100 G, STV 5100 E STV 6000 G, STV 6000 E	STV 5100 G, STV 5100 E STV 6000 G, STV 6000 E STVH 5100 E, STVH 6000 E





## CUSTOMERS APPRECIATE NEW AMMANN MINI PAVER

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LANGENTHAL, Switzerland – Customer reviews of the new Ammann mini paver continue to be positive, with contractors reporting the machines are ideal for small paving applications.

"The AFW 150-2 always draws a lot of attention when it shows up on jobsites or tradeshows," said Marcus Utterodt, Global Commercial Manager Pavers. And this continues with the first machines being sold to customers. "Now we are seeing the next step: enthusiastic feedback from customers in the field."

Separating the paver from the competition is its range of working widths – from 250 mm to 1650 mm. The narrowest widths are possible because material flow can be limited to half of the machine with a unique material flow divider system.

"Without the AFW 150-2, contractors working at those widths would have to place the material by hand, risking quality issues in terms of unevenness or bad pre-compaction," Utterodt said.

Contractors have given the mini paver glowing reviews – and it's easy to see why, Utterodt said. "We worked together with customers and took their feedback into consideration when developing this paver," he said.

That input drove key features, including an improved dashboard, a new steering wheel and a hydraulic screed extension. The improved material flow system includes the capability to limit paving to a single side of the machine.

The paver maintains the unique machine concept of its predecessors that made it so successful in the field. It is a 3-wheel paver: 2 in the rear to enable traction and 1 in the front for steering. The fixed hopper can be side-loaded by a skid steer. Its tight turning radius enables performance in close spaces and when working with sharp curves.

"We kept features that made this mini paver unique, and then added some significant improvements when developing the AFW 150-2," Utterodt said. "It's very encouraging to see that the changes are having a real impact on the jobsite. Contractors continue to give the machine very positive reviews."

# AMMANN INTRODUCES HEAVY ROLLERS WITH OSCILLATION

Ammann has introduced two new heavy tandem rollers that feature oscillation, a gentler compaction method with a host of benefits.

The Ammann ARX 90 and ARX 110 Articulated Heavy Tandem Rollers can operate in oscillation mode or with traditional vibration, allowing the operator to choose the best method for the job.

Oscillation eliminates about 90 per cent of the stress on materials when compared with a traditional circular vibratory system. This is important when compacting on bridges, over sewers and utility lines and near buildings where a traditional vibratory approach can cause damage.

Oscillation uses less force but delivers both

vertical and horizontal energy, essentially massaging the aggregates into place. The drums maintain constant contact with the ground and deliver both static and dynamic forces.

The ARX 90 and ARX 110 with oscillation can bring substantial benefits to jobsites. In asphalt applications, they are able to work on hot mats sooner than traditional rollers, and they are able to stay on cold mats longer, too. This greatly expands the compaction window, essential for time-pressed crews.

The rollers also are great fits for sealing asphalt joints. The massaging motion of oscillation provides enough energy to break down the hot asphalt – yet does not damage the adjacent cold mat.

When working in soil applications, the compactors prevent damage to sensitive structures and over-compaction.

For those occasions when oscillation is not required, the ARX 90 and ARX 110 feature heavy-duty, two-stage vibrators on both drums. The compactors are available with Tier 4 Final or Tier 3 engines.

	ARX 90 Oscillation	ARX 90 Oscillation	ARX 90 HF Oscillation **	ARX 90 HF Oscillation **	ARX 110 Oscillation	ARX 110 Oscillation	ARX 110 HF Oscillation**	ARX 110 HF Oscillation**
<b>Operating weight*</b>	9470 kg	9560 kg	9470 kg	9560 kg	10 310 kg	10 400 kg	10 310 kg	10 400 kg
<b>Max. weight</b>	10 910 kg	11 010 kg	10 910 kg	11 010 kg	11 750 kg	11 860 kg	11 750 kg	11 860 kg
<b>Working width</b>	1680 mm	1680 mm	1680 mm	1680 mm	1680 mm	1680 mm	1680 mm	1680 mm
<b>Oscillation Frequency</b>	40 Hz	40 Hz	40 Hz	40 Hz	40 Hz	40 Hz	40 Hz	40 Hz
<b>Oscillation Amplitude</b>	1.3 mm	1.3 mm	1.3 mm	1.3 mm	1.3 mm	1.3 mm	1.3 mm	1.3 mm
<b>Engine</b>	Deutz	Deutz	Deutz	Deutz	Deutz	Deutz	Deutz	Deutz
<b>Engine power</b>	74.4 kW	74.4 kW	74.4 kW	74.4 kW	74.4 kW	74.4 kW	74.4 kW	74.4 kW
<b>Engine Tier/Stage</b>	T3/3A	T4f/4	T3/3A	T4f/4	T3/3A	T4f/4	T3/3A	T4f/4

\*-CECE(Cab,ROPS) \*\*-non CE version

## OSCILLATION







## CONTINUOUS PLANT'S MIX QUALITY MEETS AIRPORT STANDARDS

VITÓRIA, Brazil – When it comes to airport renovations, the Ammann ACM 140 Prime Asphalt-Mixing Plant is stealing the show in South America.

**AIRPORT PROJECTS TYPICALLY RELY ON BATCH PLANTS TO ENSURE DOSAGES ARE ACCURATE AND MIX QUALITY IS HIGH AND CONSISTENT. HOWEVER, THE ACM 140 PRIME IS ABLE TO MEET THE REQUIRED QUALITY STANDARDS WHILE ALSO OFFERING THE PRODUCTIVITY OF A CONTINUOUS PLANT.**

The quality of the Ammann continuous plant is so high that airport officials throughout South America are allowing use of the ACM 140 Prime. Not surprisingly, construction firms are eager to take advantage of the continuous plant and the production it offers.

Among them:

- At an airport in Trelew, Argentina, the ACM 140 Prime proved productive, with delivery of 45 000 tonnes of mix in 30 to 40 days.
- An ACM 140 Prime also was utilized during runway work at another Argentinian airport, in Chapelco.
- And at the airport in the mountain city of Jauja, Peru, the ACM 140 Prime led the charge.





## LPG FUEL POWER IN BRAZIL

The ACM 140 Prime also was hard at work at the Eurico de Aguiar Salles Airport in Vitória, Brazil.

Here, the advantages of the Ammann plant went beyond production and mix quality. The plant was powered by LPG gas and is believed to be the first such plant in South America to use the fuel type.

The benefits of LPG are significant for construction companies. The fuel is easy to transport, is efficient and enables reduced emissions. But the biggest advantage might be cost savings. The LPG plant consumed 30 percent less fuel when compared with heavy oils.

Leading the Vitória airport improvement efforts was JL Consortium, a company with 40 years of experience in a variety of projects, including a number of airport renovations.

The expansion was completed in September 2017. Daily production averaged 1300 tons. As many as 2100 tons were produced when weather and other conditions were good. All told 260 000 tons were produced – a considerable amount of asphalt which provides perspective on the significance of the airport expansion.

The plant showed its ability to handle specific dosages. "The ACM 140 Prime was responsible for the production of PMQ (pre-heated) mix," said João Luiz Felix, president of JL Consortium and JL Construtora. The asphalt was a drainage mix that also served as a binder layer. In addition, the plant produced a wear course that included a special polymer.

An engineering company had a constant presence at the site, conducting extensive testing to ensure mix quality. The firm conducted nine tests per day, with three samples taken during each 8-hour shift, and reported high quality and minimal variation.

Felix praised the plant's technological advances, including the clear separation of the drying and mixing processes, which he said ensured mix quality and limited emissions. With the ACM 140 Prime, the mixer is

separated from the thermal process, allowing easy adjustment based on the type of mix.

Also praised were the burner process and the exhaust treatment system, which considerably reduce the load on the baghouse. The proprietary Ammann as1 Control System provided consistency and quality control.

"The ACM 140 Prime Asphalt-Mixing Plant has proven to be robust, efficient and economical, with high productivity," said Diego Weber, a civil engineer with the construction firm who is responsible for the asphalt plants. "It is extremely user friendly, and in terms of operation, it is superior to other brands offered on the market."



# THE CRUCIAL ROLE OF CONTROL SYSTEMS

As a production manager at Aggregate Industries, Richard Stott's job is to ensure that asphalt is made – and lots of it.

But that's only the start. There is also the matter of the company's pledge to "create a better-built environment through sustainable approaches."

Delivering on both fronts is no small task, but Stott has done exactly that at Aggregate's facility in Sheffield in the United Kingdom.

RAP utilization is extremely high and meets the company's sustainability goals.

Production has been good, too; nearly 2 million metric tons of asphalt have been created since the Sheffield plant was commissioned in 2013.

Stott is quick to give credit to many sources: operators, other staff, suppliers and the plant itself – an Ammann ABP 240 Universal Asphalt-Mixing Plant.

But Stott doesn't stop there. He also praises an essential yet often underrated

production and sustainability tool: the plant's operating system.

Ammann, too, understands the importance of the control system, Stott said. "The Ammann as1 Control System is an industry-leading software system that complements the already-excellent asphalt plant perfectly," Stott said.



Nearly 2 million tonnes of asphalt have been produced by the Ammann ABP 240 Universal Asphalt-Mixing Plant in Sheffield, UK, since it opened in 2013.

emergency support is always available and helpful," Stott said. "The Ammann engineers who attend the site are well informed and helpful and know the system inside and out. Their knowledge is invaluable when making changes and identifying problems."

The system also includes "modules" – optional software supplements that help plants deliver even more value. Aggregate Industries' sustainability goals led the company to turn to two key Ammann modules: EcoView and the as1 Dynamic Recycling Addition (RAD).

## EcoView

This module helps discover and eliminate energy waste. An intuitive display informs operators and enables immediate adjustment.

"EcoView allows for real-time reporting and monitoring of energy consumption and raw material use," Stott said. "This gives operators the data they need to make decisions around throughput and material control to maximize savings and efficiencies."

EcoView also determines the values of emitted carbon dioxide and calculates energy costs that result when adjustments are made and operations become more efficient.

## Dynamic Recycling Addition

The RAD module makes it easy to modify the RAP ratio. An integrated wizard guides the operator through the recipe input process. Slide controls enable adjustment of the RAP ratio during production.

## System is Essential

Ammann knows the technology built into the plant is only as good as the operator running it. Too often that operator's performance can be limited by the control system.

Ammann plants run on the proprietary and intuitive as1 Control System. "The as1 system is an innovative package designed with the operator in mind," Stott said. "With a well-designed and laid-out interface, the as1 system gives the operators the confidence to run the plant safely and efficiently."

Training makes the system even more productive and efficient.

"Full training was provided to all operators by knowledgeable Ammann staff prior to handover," Stott said. "This gave these operators the competence and ability to not only operate the plant, but to be able to pass on this training to future operators. All staff who have operated competitor plants comment on how user friendly the software is."

Ongoing support helps overcome any challenges as well. "Twenty-four-hour



## AS1 CONTROL SYSTEM

### POWERFUL, RELIABLE AND PROVEN WORLDWIDE

The powerful and future-oriented as1 system concept combines proven Ammann software with specially matched industrial hardware. The as1 computing environment has been designed and tested for use in tough environments. Its networking capability also has been optimised. Customers profit from the flexible workstation configuration, networking and administration.



"It is designed to ensure that RAP addition, and therefore binder saving, are always maximized," Stott said. "This gives operators the confidence to keep throughput high while maintaining quality as the overarching priority."

The system works so well Stott calls it "the industry leader and a must for all asphalt plants."

"Having real-time information keeps the operators one step ahead at all times," he said. "It allows them to keep throughput high while maximizing RAP addition without compromising quality. This, in turn, ensures that efficiency is excellent and therefore profitability is maximized."

#### Reports are Key

The as1 Control System, including EcoView and RAD modules, collects data at all stages of the manufacturing process. Some information is relayed to operators in real time so they can adjust to maximize fuel usage and achieve other efficiencies.

In addition, data is stored and processed to provide great insight into plant operations, Stott said.

"Reports are in-depth, informative and relevant to the operation," Stott said. "All levels of personnel at the facility gain something from the reports. The operators can monitor their own performance. Management can get details regarding usage and efficiency. All of the details from the suite of reports

are used to drive improvements and plant efficiency."

Aggregate Industries uses the reports on a daily, weekly and monthly basis, he said. Accessing the information is very easy.

"The biggest win we have identified from the reports is the detailed information surrounding RAP addition," Stott said. "The RAP usage report allows us to identify every missed opportunity to improve the cost-savings the addition of RAP gives us. It also drives improvements for how we control RAP."

It's not surprising Stott endorses the as1 Control System based on what he sees daily. "It's highly recommended," he said.



# FLYOVERS RELIEVE CONGESTION IN MYANMAR

A great deal of the Ammann product line was at work during the recent construction of an overpass or “flyover” in Yangon, Myanmar, in Southeast Asia.

Traffic in the city is increasingly becoming more congested, so the flyover was created above the location where several roads converge.

Handling the project was Shwe Taung Development Co. Ltd., one of Myanmar’s leading construction companies. Founded in 1990, the company employed more than 6,000 last year.

“Our mission is to inspire lives through responsible investment and sustainable development,” said Mr. Ye’ Myint, Chief Executive Officer at Shwe Taung Group, with headquarters in Yangon. “The company continues to shape the future of the living and working environments in Myanmar by developing real estate projects and infrastructure developments aiming to transform the lives of the Myanmar people.”

Ammann equipment continues to help make that a reality. Shwe Taung owns an Ammann AFT 500 Asphalt Paver, an AP 240 T2 Pneumatic Roller, an AV 70 X Articulated Tandem Roller, an ARW 65 Walk-Behind Roller and an ASC 100 Soil Compactor.

Providing the product support was Htun Nay Wun Thitsar, the local Ammann Dealer that is well-regarded for its after-sales efforts.

## Key Project

The Tamwe Flyover, with a cost of \$19.2 million, is a Y-shaped structure that connects several roads and moves traffic above the congested streets below. Flyovers are increasingly common in Myanmar, with another having been completed the previous year.

“Yangon’s population increases day by day and the people were facing traffic problems almost daily, so the regional government built the flyover to ease chronic traffic conditions,” said Mr. Ye’ Myint.

The flyover is 600 metres long. The AFT 500 F Asphalt Paver worked at the width of the flyover road when possible. Only a single lift of asphalt was required.

Haul trucks carried 5 tons to the jobsite from the plant, which was 4 km away. A tamping and vibratory screed was utilised.

The Screed Assist System helped provide consistency and a level surface. The system is an e-hydraulic device that unloads the weight of the screed, thereby enabling an increase in paving depth. Transferring the weight of the screed onto the rear tracks also improves traction.



The paver worked at a pace of 5 metres per minute, even while pulling at the extensive lift. An AV 70 X Articulated Tandem Roller provided breakdown compaction. It typically made between two and four vibratory passes. The AP 240 T2 Pneumatic Roller made 16 passes during intermediate compaction. The tandem roller then followed with another two to four passes, with no vibration.

Mr. Ye’ Myint said. “The management likes the combination of the Ammann paver and rollers because the project was finished on time, and the Ammann brand can certainly support our business development.”





# USERS APPLAUD IMPROVEMENTS ON AMMANN PLATE COMPACTORS

LANGENTHAL, Switzerland – Operators who recently used Ammann's newest plate compactor praised the machine for its versatility, reduced hand-arm vibration and low sound levels.



Christian Jordi of Witschi Bau, a Langenthal, Switzerland-based construction company, operated the Ammann APF 15/40 Forward Moving Vibratory Plate Compactor in both soil and asphalt applications.

"The new APF plate is perfect due to its flexibility in both applications," Jordi said.

Jordi and other Witschi Bau operators also commended the new Ammann plate compactor for a reduction in unwanted vibration. The improvement is noticeable when compacting soil and aggregates. It becomes even more apparent when working on asphalt, which typically creates more unwanted vibration than other materials.

Jordi noted the machine's outstanding productivity on asphalt, as the APF 15/40 was able to quickly reach compaction goals on a parking lot project.

The new plate is quieter, which was immediately apparent to Jordi. It is so quiet that even other workers on the site noticed the reduced sound level.

The APF 15/40 is one of five new Ammann vibratory plates that provide industry-leading compaction power, manoeuvrability, forward-moving speed and climbing ability. The product line is known for dramatically reducing unwanted vibration to operators, as noted by Jordi.

The new models are the Ammann APF 12/33, APF 15/40, APF 15/50, APF 20/50 Hatz and APF 20/50 Honda. They are the

lightest of all Ammann plate compactors, with weights from 69 kg to 107 kg (150 lb to 234 lb) and widths of 330 mm to 500 mm (13.0 in to 19.7 in).

The plates fit a broad range of applications, such as gardening, landscaping and patchwork for road repairs. They are available with an optional water sprinkler, making them suitable for asphalt jobs, like Jordi's parking

lot project. A Vulcolan mat protects paving stones during compaction.

Reliable and efficient Honda petrol engines power the APF line. The largest plate, the APF 20/50, is available with a Honda petrol or a Hatz diesel engine. The diesel engine performs well, even in high altitudes, and enables the use of a single fuel type on many jobsites.





## GREEN AMMANN PLANT PAVES THE WAY FOR WORLD LEADERS' VISIT

XIAMEN, China – An Ammann ABP 320 Universal Asphalt-Mixing Plant came through when a high-profile summit was held recently in China.

The plant played an essential role in preparation of this year's BRICS Summit. BRICS' core consists of China, Brazil, Russia, India and South Africa. The heads of the five nations attend, as do other delegates from those and additional countries. Discussion topics include trade, finance, business, agriculture, education, health, science and

technology, culture, think tanks and friendship cities.

This year's event was held in early September at Xiamen International Conference Center in the port city of Xiamen, China. President Xi Jinping chaired the summit. President Jacob Zuma of South Africa, President Michel Temer of Brazil,

President Vladimir Putin of Russia and Prime Minister Narendra Modi of India also were present.

The Ammann ABP Universal gained the approval of the U.S. Energy Information Administration (EIA) and is the only asphalt plant in Xiamen to do so. The EIA is an impartial energy information center. It

collects, analyses, and disseminates information to promote sound policymaking.

"This is the most environmentally friendly plant in China," Yan Xin, Supervisor of Xiamen Municipal Engineering Lo Ctd Company, said of the Universal plant.

Infrastructure improvements were needed in Xiamen given the scope of the event. More than 40 km of new roadway and 12 km of bike paths were built over a three-month period leading up to the event.

The municipality of Xiamen handled the







paving, and the Ammann ABP 320 Universal Asphalt-Mixing Plant provided the mix.

Local asphalt plants developed by other manufacturers could not meet the EIA requirements and therefore discontinued operation. But the Ammann ABP Universal plant continued to operate thanks to its environmental features.

“The plant is a highly green asphalt plant,” Yan said. “It is equipped with a cold feeder dust collection system and smoke treatment system. There is a dust collection system for hot mix storage silos, a smoke-handling system for bitumen tanks, a heavy-oil smoke-handling system, and so on.

“They are all encapsulated inside a big housing. We can say this is the most environmentally friendly asphalt plant in China so far,” he added.

The housing makes the plant look like an attractive commercial building, also important in the beautiful and trendy port city.

A high volume of production was essential too. Paving could only be completed at night, so production time was limited. Yet the plant still had to mix 300,000 tonnes in three months.

The timeframe made reliability crucial – as did the lack of other working plants. “If this plant broke down, there was no alternative plan available. Then the BRICS project could not be completed,” Yan said. “But the plant finished the job very well, which is why we highly recommend it.”

## AMMANN ABP UNIVERSAL

Key features of the Ammann ABP Universal Asphalt-Mixing Plant.

- Meets world’s strictest requirements
- Output of 240 t/h to 320 t/h
- Highly flexible mix maker
- Wide range of equipment and components enables customisation
- Infrastructure including cold feeders, drying drum and filter enclosed to create the appearance of a commercial building
- Reduced sound and dust levels
- Ability to utilise recyclables

### TECHNICAL SPECIFICATIONS :

**CAPACITY:** 240–320 t/h, 264–353 short tons / hr

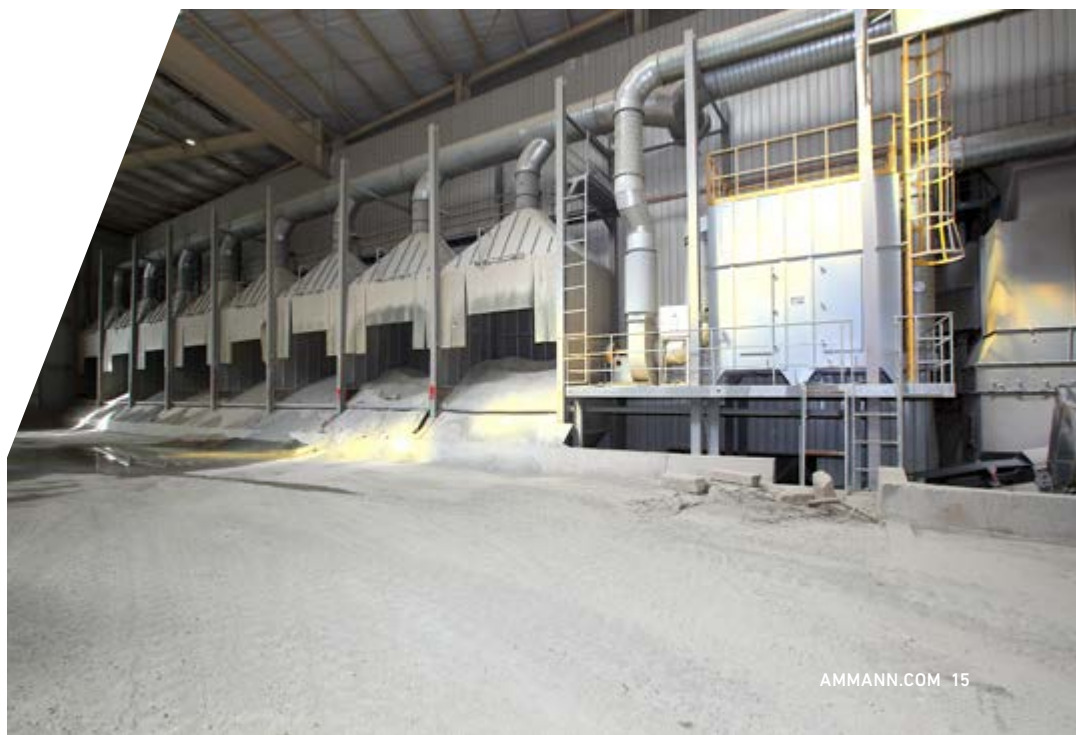
**MIXER SIZE:** 4 t or 5 t, 4.4 or 5.5 short tons

**HOT AGGREGATE SILO:** 140 t, 200 t, 154 short tons, 220 short tons

**HOT MIX STORAGE SILO:** 140 t or 180 t in 2 compartments, 260–340 t in 4 compartments, 154 or 198 short tons in 2 compartments, 286–375 short tons in 4 compartments

**CONTROL SYSTEM:** as1

**RECYCLING SYSTEM:** RAC / RAH 50 / RAH 100







# 4 WAYS YOUR PLANT CAN BRING IN BUSINESS

Apollo CounterMix 90 Helps South African Firm Succeed

**V AND S PLANT OPERATES IN AN EXTREMELY COMPETITIVE ENVIRONMENT. THAT MEANS THE JOHANNESBURG, SOUTH AFRICA-BASED COMPANY NEEDS TO UTILISE EVERY AVAILABLE ADVANTAGE.**

For V and S, many of those differentiators come through the efficient use of its Apollo CounterMix 90 Asphalt-Mixing Plant.

How can an asphalt-mixing plant help a business separate itself from the competition? V and S, a division of Instant Tar Surfaces (ITS), offers a few suggestions.

Control your own destiny. ITS runs its own paving business and handles everything from mix production to finish compaction. Owning the plant helps ensure quality requirements and deadlines are met.

"We are in control of the whole supply chain," said Tapiwa Zimuwandeyi, plant manager for V and S. "We effectively supply our projects on time and reduce standing time. We therefore finish projects on time and within budget. This leads to increased profitability."

Another division of ITS leases paving equipment. Customers who rent this equipment are great candidates for the purchase of asphalt as well.

Train and train some more. The CounterMix 90 has excellent features – including its control system – that make it highly efficient and productive. V and S realises operators must be properly trained to leverage the value of the plant.

"V and S Plant has a highly competent and experienced team of operators as we have invested a lot of money in employee training and development," Zimuwandeyi said. "Our operators are constantly trained in the methodology and technological advances in the industry. We believe that the employee is the No. 1 resource of our company."

Deliver quality to regain repeat business. The CounterMix 90 produces quality mix, which is the company's best marketing tool.

Customers who purchase the mix for their own projects return because of the superior quality of the asphalt.

ITS' paving division also benefits from the use of quality mix, which helps the group deliver a high-end product. "We do a lot of repeat business for customers," Zimuwandeyi said.

Find value from start to finish. V and S Plant did extensive research before purchasing a plant. The company was committed to finding value across the life of the plant. That meant an affordable acquisition price, cost-effective maintenance practices and quality customer support from Ammann South. In fact, V and S Plant utilised the

Ammann online support system for quick resolution without a visit from a technician.

"We selected the plant because we received value for our money – it was affordable," said Zimuwandeyi. "It costs less than a batch plant with the same hourly tonnes of production. It's easy to maintain, and we receive real-time support from Ammann."

Following these basic principles has helped the business, which started in 2007, thrive in today's competitive environment.

"We are able to cut down on our prices but still make a reasonable profit,"

## APOLLO COUNTERMIX

- Counter flow continuous drum for high fuel efficiency and lower carbon foot print
- Extremely rapid erection and implementation times with options like steel foundation and plug socket cabling
- Efficient world class bag filter for stringent pollution norms

### TECHNICAL SPECIFICATIONS :

**CAPACITY:** 90–120 t/h, 100–132 short tons / hr

**CONTENT COLD FEEDER:** 8 m<sup>3</sup> each bin with extension plates, 282.5 ft<sup>3</sup> each bin with extension plates

**CONTROL SYSTEM:** CS100

# FLEXIBILITY OF AMMANN ROLLERS KEEPS TOLL ROAD ON TRACK

Java Project to Boost Local, Regional and National Economies

The Indonesian government is creating a series of toll roads that will have a significant economic impact. But in the case of the Trans-Java portion of the project, load-bearing capacity had to be improved before the economic payoff can come.

The benefits of the toll road system will be significant. The roads will drastically improve logistics for the transport of goods. They also will advance the quality of life of locals, who will be able to travel more easily. Tourism, too, will benefit.

The Trans-Java Toll Road, at a length of about 1000 km, is a key piece of the infrastructure improvement plan. It includes the Central Java Toll Road, which will connect Jakarta to Surabaya. The Central Java Toll Road also will significantly reduce the transportation difficulties within Java Island.

Of course roads cannot always be built in ideal locations. The demands of businesses

and the public drive their construction. That is the case with the Central Java Toll Road – and that is where the use of Ammann ASC 100 Soil Compactors came into play.

A section of the road was being placed on soft subgrade. Improving that subgrade so it could support the road fell to PT Dirgantara Yudha Artha, a construction company based in Bandung, Indonesia.

“To overcome the subgrade condition, we utilised road engineering methods to get the load-bearing value above 50 per cent CBR (California Bearing Ratio),” said Asep Rahman Hidayat, the Project Manager at Dirgantara. “Some of the methods used were PVD (Prefabricated Vertical Drain) preloading, vacuum consolidation and replacement.”

Trial compaction tests showed that achieving the minimum density of 95 per cent required three passes with a padfoot roller and five passes with a smooth drum roller.



This was the case with all methods.

The ASC 100 single-drum rollers were perfectly fit for this application. First, they were able to achieve compaction regardless of the improvement method utilised.





Second, the rollers are adaptable. They are offered with padfoot drums, smooth drums or an easy-to-install shell kit. The kit enables quick conversion of a smooth drum to a padfoot – or a padfoot to a smooth drum. This flexibility proved essential if a particular type of drum was needed to keep the project on track.

“The rollers performed well and reliably,” said Asep. “They reached the compaction targets quickly.”

Asep said operators like the rollers because they are easy to control.

For Asep, that is only the start. “I like the machines because they are agile and have good manoeuvrability – and yes, are easy to operate, too,” he said

## TECHNICAL SPECIFICATIONS:

**OPERATING WEIGHT (CECE):** 10 120 kg

**WORKING WIDTH:** 2130 mm

**AMPLITUDES:** 1,85/1,15 mm

**FREQUENCIES:** 32/35 Hz

**CENTRIFUGAL FORCES:** 277/206 kN

**ENGINE:** Cummins

**TYPE:** 4 BTA 3.9 – C116

**RATED POWER:** 86/115 kW/HP



# 'MORE PROFITABLE THAN ANY OTHER PLANT'

ABT SpeedyBatch Perfect Fit For Demanding But Temporary Airport Work



Business executive Jaime Arnó turned to the Ammann ABT 280 SpeedyBatch when he needed both mobility and productivity.

Arnó, CEO of Benito Arnó e Hijos SA, landed a contract to provide asphalt for the reconstruction of the main runway at Spain's Barcelona-El Prat Airport.

It was a demanding job. "For this job, we had to manufacture 24 hours a day for almost a month," Arnó said. "We produced 140,000 tonnes of asphalt."

The work was intense, and productivity was required. The ABT 280 SpeedyBatch's capacity of 280 tonnes per hour was essential.

"The work at Barcelona Airport represents an important challenge for our company," Arnó said. "It's a significant amount of work, which makes it difficult. There is a short execution period, as well as the fact it's the main runway of the airport, and we couldn't stop all the air traffic."

As intense as the work was, the job only lasted a month. That meant the transport-optimised nature of the ABT SpeedyBatch was indispensable.

"This plant, thanks to its modular design, let us relocate the most important elements without having to organise any special transport," Arnó said.

The plant is transport-optimised. No special transport is needed. Cable channels are integrated into catwalks that provide protection during transport. Filler elevators and the associated costs are not necessary because reclaimed and external filler silos are part of the support structure.

Site development costs are also reduced because the plant does not require concrete foundations.

"This plant is ideal for this type of work," Arnó said. "In a very short period of time, it allows us to dismantle, move it and assemble it again. We then carry out the work at a new location and repeat the dismantling process and move it to another site."

Arnó knows the process well, as it has been repeated many times – including at other airports. "This plant has already been transferred to other jobsites, such as Madrid-Barajas Airport, which went through practically the same runway renewal work," he said.





Arnó is convinced only the ABT SpeedyBatch could provide the needed mobility and productivity.

“This plant is the perfect solution,” Arnó said. “Another solution with another type of plant carries higher assembly and dismantling costs, as well as needing more installation time. This plant, therefore, is more profitable than any other type of plant, such as semi-mobile or stationary options.”

## **ABT SPEEDYBATCH TRANSPORT OPTIMISED ASPHALT MIXING PLANTS**

- Output of 240 t/h to 300 t/h
- Extremely rapid installation and implementation
- Reduced site development costs because the plant does not require concrete foundations
- Lower installation costs because highly functional individual modules are linked via intelligent interfaces
- Provides every full-scale stationary mixing plant advantage in terms of output, performance and space requirements
- Includes Ammann’s full range of recycling solutions
- Filler transport accomplished with tube screws; no elevator necessary

### **TECHNICAL SPECIFICATIONS:**

**CAPACITY:** 240–300 t/h, 264–330 short tons / hr

**MIXER SIZE:** 3.3 - 4 t, 3.6 – 4.4 short tons

**HOT AGGREGATE SILO:** 18 t - 33 t, 19.8–36 short tons

**HOT MIX STORAGE SILO:** direct loading 30 t in 1 compartement, 112 t in 2 compartments lateral, direct loading 33 short tons in 1 compartement, 123 short tons in 2 compartments lateral

**CONTROL SYSTEM:** as1

**RECYCLING SYSTEM:** RAC / RAH 50

# AMMANN UNVEILS NEW AND IMPROVED FACILITIES IN INDIA

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Ammann's expanded facility footprint in India includes new processes to deliver more products to customers faster and ensure quality remains as strong as ever.

The transformation of the Ammann India facility (formerly known as Ammann Apollo Private Limited) in Ditasan, near Ahmedabad, began in 2014 and will be completed in April, 2018.

Phase 1 included the construction of two new halls for the manufacturing of Ammann asphalt plants for the local Indian market. That portion of the upgrade was completed two years ago.

Phase 2, which is nearing completion, has been even more extensive. Old production halls were removed and replaced with new buildings. New Administrative Headquarters were added to include state of the Art Training Facilities and customer meeting centers.

"The entire project had to be completed while we were still manufacturing," said Nayanesh Modi, project manager. "This

required exceptional organization, as we could not lose any production capacity. Raw materials were shifted to other buildings and an additional hall was rented nearby to keep up with the production volume."

All production is now returning to the new, state-of-the-art facility. The expansion also provides an opportunity to include several other remote operations into a single location. This will increase efficiency, reduce







costs and will benefit our customers.

The production facilities feature better layouts, and therefore higher efficiency. The process is more technologically advanced, with new modern robots used for welding as one example. Customers will see products delivered even more quickly because of the increased efficiency. The robotics processes, as well as a new paint shop, will improve the quality of all the products.

## AMMANN INDIA FACILITY FACTS AND FIGURES

### Home to ...

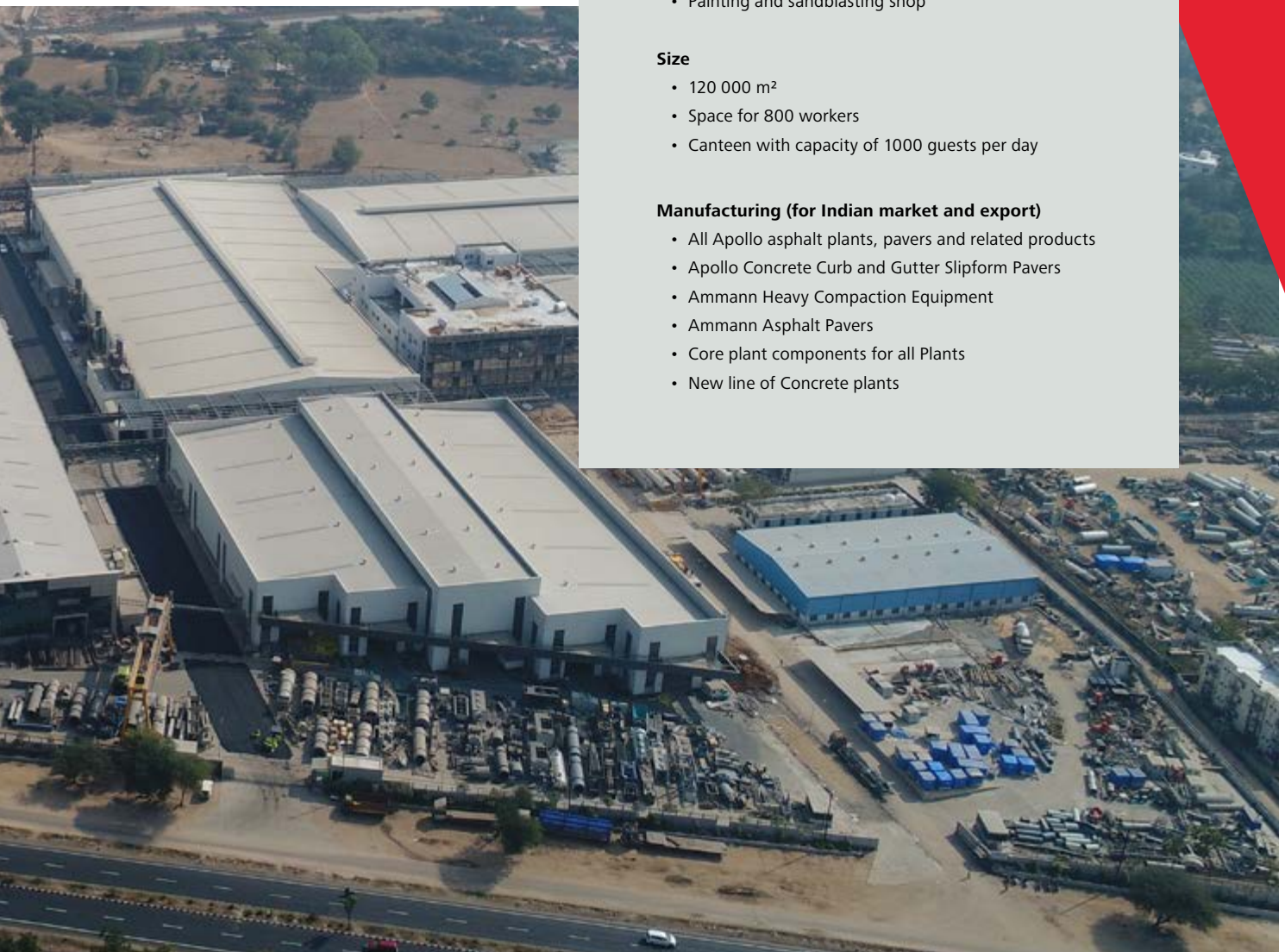
- Manufacturing facilities
- Administrative offices
- Training centre
- Compactor testing centre
- Painting and sandblasting shop

### Size

- 120 000 m<sup>2</sup>
- Space for 800 workers
- Canteen with capacity of 1000 guests per day

### Manufacturing (for Indian market and export)

- All Apollo asphalt plants, pavers and related products
- Apollo Concrete Curb and Gutter Slipform Pavers
- Ammann Heavy Compaction Equipment
- Ammann Asphalt Pavers
- Core plant components for all Plants
- New line of Concrete plants







# STRESS-FREE COMPACTION

## OSCILLATION



### OSCILLATION REDUCES STRESS, PREVENTS DAMAGE

Powerful compaction output is no problem for the Ammann ARX 90 and ARX 110 Articulated Heavy Tandem Rollers with oscillation. Yet the rollers have a gentler side, too. They feature oscillation, which utilises both vertical and horizontal energy to massage the aggregates into place.

The benefits of oscillation are significant:

- Eliminate about 90 per cent of the stress on materials, essential when compacting on bridges and over sensitive areas such as utility lines.
- Eliminate vibration marks in asphalt applications
- Extend asphalt compaction windows by enabling rollers to start sooner on hot mats and stay longer on cold mats.
- Prevent over-compaction and damage to sensitive structures when working in soil applications.
- Excel when sealing asphalt joints because the massaging motion breaks down hot asphalt without damaging the cold mat.