THE AMMANN GROUP MAGAZINE

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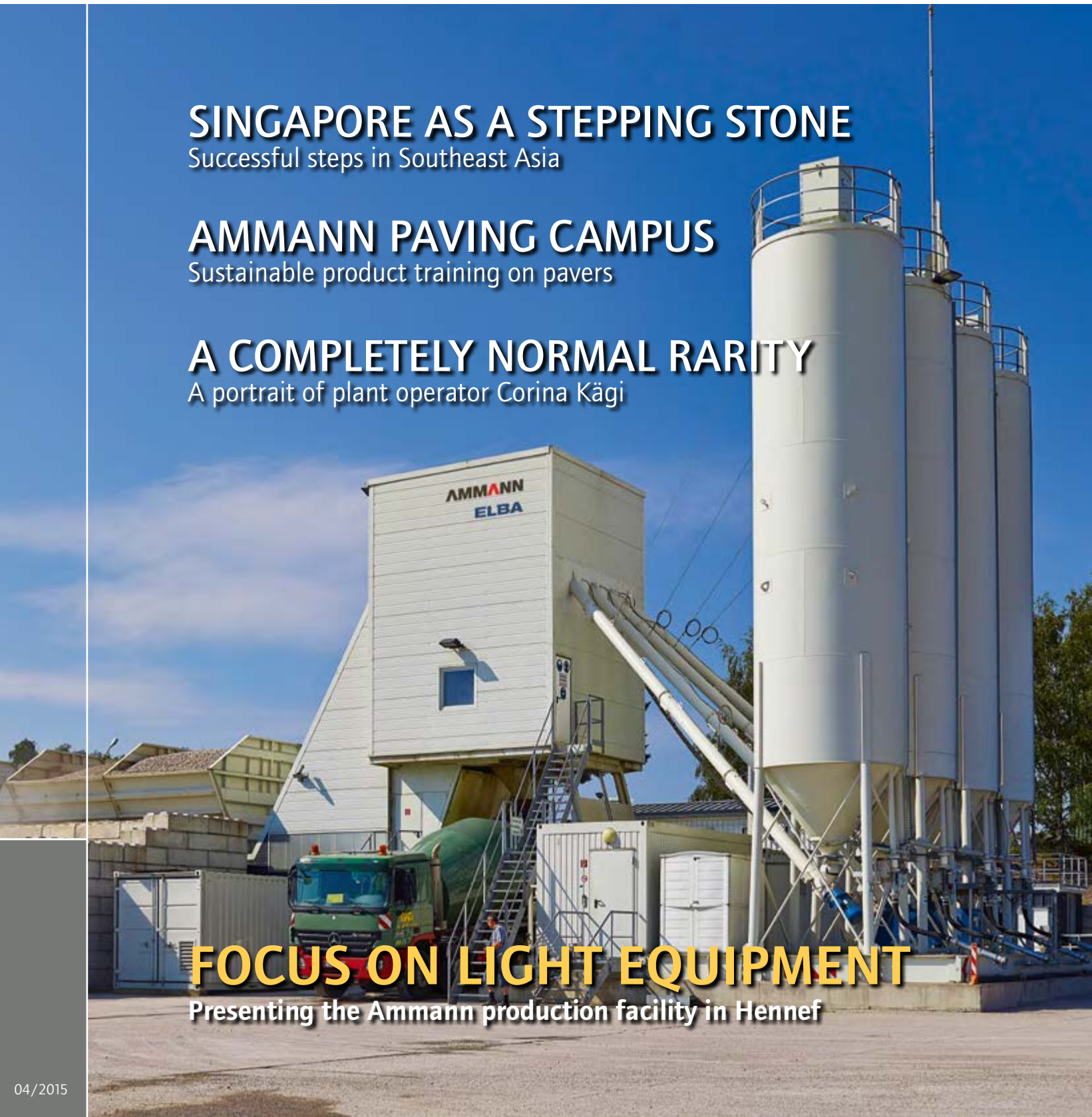

SINGAPORE AS A STEPPING STONE
Successful steps in Southeast Asia

AMMANN PAVING CAMPUS
Sustainable product training on pavers

A COMPLETELY NORMAL RARITY
A portrait of plant operator Corina Kägi

FOCUS ON LIGHT EQUIPMENT
Presenting the Ammann production facility in Hennef

04/2015

TITLE IMAGE

Ammann Elba concrete mixing plants offer flexible solutions for every purpose: an ESM 105 owned by Peterbeton in Baden-Baden, Germany.

A CORE OF ASPHALT

ON SITE: Dam project on the Romaine River in Canada.

NO ORDINARY SPECIFICATIONS

FOCUS: Family-owned business trusts in Elba concrete mixing plants.

AFTER SALES CONFERENCE MACHINES

EXPERT: Dealers focus on customer service.

SINGLE-DRUM ROLLER WITH 30,000 OPERATING HOURS

WORLDWIDE: 15 years working on the coal tip.

Hans-Christian Schneider
CEO and member of the
Ammann Group Board of Directors

CUSTOMER BENEFITS **IN THE SPOTLIGHT**

Dear Readers,

Ammann is moving ever closer to you through a globally coordinated network of sales outlets, service points and dealerships. As a long-term partner, we support your construction projects with our innovative, safe and practice-oriented products. Even though world markets are developing in different directions and these developments represent a challenge to both you and us, our products and services are always focused on benefitting customers like you.

Our extensive range of services is unique and has one exclusive purpose: to support you in your daily work. A comprehensive range of services, customer hotlines and an uncomplicated and immediate spare parts service are standard practice for Ammann. But we have a whole lot more to offer you. From our headquarters in the Swiss town of Langenthal to Queensland in Australia and Shanghai in China, you can rely on the experts at our local training centres for plant owners and operators to help you with any aspect of asphalt plant processes, operations and maintenance. The specialists at the "Ammann International Training Center" in the Czech town of Nové Město are dedicated to training customers on how to use and service our broad range of compactors and pavers.

Our investments in our global and local sales network, our mature, ecologically friendly and market-driven products and an extensive range of services all pursue the same objective: to optimise your construction project productivity. Let's strengthen our partnership in keeping with our motto: "Productivity Partnership for a Lifetime." Our values of independency, longevity and credibility are the driving forces behind everything we do and form the basis for successfully working together with you.

I would like to express my thanks for the trust you place in the Ammann Group and hope you find reading our customer magazine both exciting and informative.

Hans-Christian Schneider
CEO and member of the Ammann Group Board of Directors

SUCCESSFUL STEPS IN SOUTHEAST ASIA

OF LIONS AND TIGERS IN SINGAPORE

Thinking of Singapore conjures up a vision of a skyline with ultra-modern skyscrapers whose glass façades reflect either the sun, the sky or the sea. Size wise, Singapore is the smallest country in Southeast Asia. Yet the nation consisting of one large island and 59 other small islands is an interesting location for many international companies. Ammann included.

SINGAPORE: MEGA-CITY AT THE SOUTH-ERNMOST TIP OF THE ASIAN CONTINENT.

Living in the megacity

Singapore is among the most deregulated and privatised economies in the world. But the real estate market is not a part of it. This is because 5.3 million citizens live and work on an area of 720 km². Forecasts assume that this number will increase to between 6.5 and 6.9 million by 2030. Plans are in the works to increase the available surface area to 766 km² by reclaiming land from the sea.

Although Singapore is one the world's most urbanised countries, more than half of the city state is covered by vegetation in the form of rain forest and parks. And that is how it should stay. Singapore's government intends to bring the natural tropical vegetation and the existing building infrastructure together through "green" building façades. The cityscape meanwhile features buildings that grow fruit and vegetables. Singapore was one of the first megacities to successfully incorporate "urban gardening" and provide fresh, locally sourced food using fewer resources than corporate farms.

Singapore's landmark is the Merlion, a fantasy creature with the body of a mermaid and a lion's head. This is because the city lies on the Indian ocean. Legend has it that a prince whose choice of bride was politically incorrect fled into the jungle where he encountered a lion. Instead of fighting they gazed into each other's eyes. That's it. The city-state's name is a combination of the Sanskrit words for lion and town: Singha-Pura. The former lion city, meanwhile, has become a tiger state.

Wealth through trading

At the heart of this development lies commercial trading, which has always been the principal business activity in mainland Asia's southern-most region. Singapore's port stretches over a distance of 30 km and is the largest in the world – regardless of

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At a height of 165 metres, the Singapore Flyer is the second-largest Ferris wheel in the world.

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Singapore's landmark: the Merlion, a fantasy creature with the body of a mermaid and the head of a lion.

whether measured in tonnage, goods turnover or transshipment. 200 shipping lines connect the Port of Singapore with 600 ports in 123 countries. Ships destined for the most important ports around the world set sail on a daily basis.

Singapore sees itself as a service hub, which is why it has signed 18 free trade agreements. As a small economy with no natural resources, Singapore wants to create a reliable and fair trade environment. Two-thirds of the population work in the services sector. Singapore has counted among the top ten countries for years when measured by GDP per capita. The country's citizens are among the wealthiest in the world.

Singapore's outstanding position is due mainly to its excellent infrastructure. In addition to the port, the country's limited surface area boasts 170 km of highway. Changi Airport is one of Asia's five largest freight handling airports. The city links the entire world. Many companies make use of Singapore en route to the Asian market, especially in the east of the continent. Asia was perceived as an inexpensive production location for many years, but now an economic change is taking place. The economic output of Southeast Asian states has increased by 15 % per year over the past five years. Asia is not only a workbench but also an expanding market with growth potential waiting to be realized.

Infrastructure as a basis

Ammann intends to grow with Singapore. Ammann's Singapore office is located very centrally on United Square, on the 24th floor of what is currently the tallest skyscraper in the region. The first few floors of the crystal palace house a large shopping mall. Starbucks is at home here, as are many well-known Asian restaurant chains. The office is easy to reach by car and the city's metro. The airport is just 20 minutes away. The local recreation area known as "MacRitchie" is just north of United Square. It is a huge freshwater reservoir with acres of virgin forest and many hiking trails. Before Ammann Singapore was established in 2013, the entire region was serviced by a representative office in Malaysia. Today, the region is managed by a team based in Singapore. The parent company in Switzerland has driven the development of Ammann structures in the region purposefully since 2011. Ammann's representatives have local roots and are well acquainted with the cultural and business customs in each country in the region. Ammann is directly represented in Indonesia, Myanmar, Malaysia, the Philippines and Thailand. The coverage area also includes Hong Kong, Cambodia, Laos, Papua New Guinea, Taiwan, Vietnam and, since the beginning of the year, Australia. Asphalt mixing plants are sold directly, while all other Ammann products are distributed through a network of dealerships. Ammann has at least one dealer in each country.

Ammann is thus able to fall back on a well-oiled infrastructure with established local roots. And with success, as it is not only the pleasing sales of machines that indicate the Ammann brand has become a recognised name in Southeast Asia. All the more so in the field of mixing plants. One can speak of market leadership in Singapore, as three out of the six plants is made by Ammann.

Market-driven solutions

JustBlack mixing plants are particularly popular in the region, with 15 of this type already

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The Port of Singapore is the largest in the world and also the largest transshipment harbour between China and Europe. It boasts 1,000 berths and many thousands of anchor spaces.

istock

Durian is available everywhere. Its taste lies somewhere between walnut and vanilla. Its peel, however, stinks, which is why it is usually forbidden to eat it on buses and in hotels.

Ammann

Singapore's largest asphalt mixing plant, a Universal NG, shortly before completion.

in operation in the area. Ammann scored a direct market hit with this product: it is inexpensively priced, easy to use and has all the characteristics typical of Ammann. Its modular design allows the integration of feeder elements for the production of modern asphalt mixes. The use of asphalt mixing plants from Ammann has increased the proportion of reclaimed asphalt in road construction and has quickly established the use of future-oriented European technology. Additionally, the plant operator can manufacture some of the plant components himself with no loss of quality. The interfaces are clearly defined. A filler silo, for instance, no longer has to be shipped around the world but can be manufactured locally. The same applies to bitumen tanks and feed bins.

The largest asphalt mixing plant in Singapore went into operation at the beginning of this year. It is a Universal NG located in a densely populated neighbourhood. It looks like a building: completely housed in, encapsulated and insulated against noise emissions. There is no "open" cold feed as the aggregate is stored in a bunker from where it is transported through underground tunnels to the mixing tower with no dust emissions. The plant has options for adding reclaimed asphalt – the enclosed parallel drum can handle up to 60 % RA.

As Singapore has exemplary character for the entire region, Ammann is optimistic that achieving market leadership across the entire region through European technology will be possible within 10 years. This is because the development of infrastructure in Southeast Asia has so far not managed to keep up with economic growth in the region – with the exception of Singapore. Spending on infrastructure projects is increasing in every country. And anyone wanting to build long-lasting roads needs quality asphalt laid using machines that do not lessen the quality.

Variety is achievable peacefully

Diversity characterises the streets of Singapore. Three-quarters of its citizens are Chinese, 14 % come from Malaysia and 8 % from India. The number of religions is equally varied, whereby Buddhism has twice as many followers than the Christian faith or Islam (15 % each). Hindu temples and Islamic mosques stand next to or across the road from Buddhist temples and Christian churches. There are never any problems from the close proximity. The Sri Mariamman Temple at the heart of Chinatown is just one example of the unusual way in which people in Singapore get along well.

This peaceful coexistence is the result of many years of effort, equality and mutual respect.

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Infraero

DRIVING THE REGION'S ECONOMY

MODERNISING ARACAJU AIRPORT

Between 4 am and 10 am every morning – the hours when no planes land or take off – 200 workers are busy extending Aracaju Airport in the Brazilian state of Sergipe. The airport to the south of the capital is the only public airfield to offer regular scheduled flights in the smallest of Brazil's states.

Every day, around 6,000 passengers make use of the airport 12 kilometres away from the city centre. According to airport operator Infraero, the arriving and departing passengers are processed by more than 1,000 employees. The daily helicopter flights taking workers to and from the oil platforms off the coasts of the federal states of Sergipe and Alagoas are just as important.

Completion of the modernisation work began in 2013 and is expected to be completed in 2015. Five Ammann products are being used to renovate and extend the runways at the airport complex. According to Infraero, the associated improvements will enable an increase in the current number of 19 scheduled flights handled at the airport every day.

Improving the infrastructure

The project has an investment package of 64.2 million Brazilian real and is being executed by a consortium consisting of two companies, Alves Ribeiro Construtora and Conenge. Rui Sousa, Equipment Director at Alves Ribeiro, says the apron's asphalt layer was refurbished during the first phase of construction. "The basic structure was refurbished at the beginning of 2014. We then resurfaced around 7,200 square metres of tarmac during April and May." The asphalt was produced by an Ammann Prime 140 asphalt mixing plant, installed by an AFT 500 E paver and compacted by three AV 110 X, AP 240 and ARX 26 rollers. "I got to know Ammann products when I was in Europe. The asphalt mixing plants are more mature than competitor models", says the executive with Portuguese roots.

Rui Sousa sees the burner, which enables massive energy savings, as one of the main benefits of the Prime 140. "Additionally, the mixer produces a good consistency and makes the end product more homogeneous", says Sousa, adding that the plant can effortlessly achieve a production output of 140 tonnes of asphalt per hour. Sousa is just as convinced by the machines. "Both the paver and the rollers meet project requirements in full. We have never had a problem with any of the machines."

New runways

Meanwhile, earthworks and infrastructure building work has begun at the airport alongside resurfacing work on the incom-

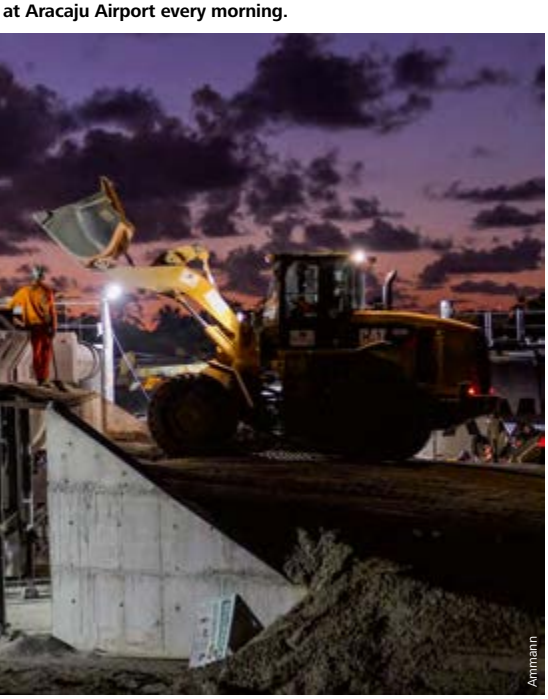
The Prime 140 reliably produces the asphalt for expansion work

Ammann

Parts of the apron were refurbished and resurfaced with asphalt during one of the first phases of the project. The demands placed on the quality of the asphalt laid at the airport are especially high, but nonetheless easily achievable with the Ammann AFT 500 G.

ing and outgoing runways. Engineer Miguel Serpa Neves from Alves Ribeiro: "We asked Ammann for technical support with regard to adjusting some of the machines to achieve the best possible results. The asphalt mixing plant, the paver and the rollers from Ammann work very reliably and are extremely robust." During the second project phase planned for mid-2015, extension work will begin on the 45-meter wide runways to increase their length from 2,200 to 2,575 meters. New taxiways will also be built to further increase the safety of operations. According to Infraero, four new taxiways will be added to the take-off and landing strips to ensure flight operations run smoothly. The project will conclude with the construction of an engine test stand and a refurbishment of the runway lighting system.

at Aracaju Airport every morning.



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Many benefits for the region

According to airport authority head Luiz Alberto Bittencourt, extending and renovating the runways will make the lease conditions for the operator more attractive. "The work will enable airport operations to run more smoothly and improve access to the apron," he said. "Extending the incoming and outgoing runways will also produce additional revenue." An increase in scheduled flights is dependent on demand, he says. "The infrastructure will be in place and we will be able to offer more flights." Infraero had logged 17,969 flights with a total of 1.13 million passengers by October 2014.

The significance of the project to the region is therefore huge, as the search for oil in the federal state is intensifying. "Bringing supplies to the oil platforms by helicopter is of vital importance. If one takes this development and the rise in population into consideration, it is clear they will inevitably lead to an increase in passenger numbers," concludes Luiz Alberto Bittencourt.

AIRPORT STATISTICS
Airport grounds: 3,874,742.3 m²
Apron: 22,356 m
Aircraft parking bays: 11
Runways 2,200 m × 45 m
Passenger terminal: 9,321 m²
Capacity/year: 2.6 million passengers
Car park spaces: 199

Source: Infraero

Ammann

The EasyBatch 140 was designed specifically to Canadian standards with regard to its electrical equipment and transportability.

EASYBATCH 140 ON A SPECIAL MISSION

A CORE OF ASPHALT

The Romaine River retaining dam project of electricity producer Hydro-Québec is the largest construction project in Canadian history and one of truly gigantic dimensions. Ammann was able to make an unusual contribution toward the historic structure through the company EMF (Excavations Marchand & Fils) based in Victoriaville.

The Romaine River flows along a stretch of some 500 km through the Canadian province of Quebec and joins the St. Lawrence river in the north, near Havre-Saint-Pierre. The dam project on the river is the largest construction project in Canada with a total cost of EUR 4.6 billion, around 2,000 workers and an estimated economic "spin-off" of around EUR 2.5 billion.

The project will be completed in 2020 after a construction period of 10 years. Four hydroelectric plants and embankment dams and around 150 km of access roads make up the core of the mammoth project. The total output of the hydroelectric plants will exceed 1,550 MW with an annual production rate of 7.5 TWh (1 terawatt hour = 1 billion kilowatt hours). The Romaine power plants therefore achieve a significantly higher output that an average nuclear power plant, or about as much as 700 offshore wind power plants.

Sealing with asphalt

The Romaine 1 retaining dam is an embankment dam with an asphalt core. It is 40 metres high and 830 metres long. Veidekke Industry Norway supplied the technology for the "Asphalt Core" and is responsible for the project's technical supervision. The visco-elastic properties of asphalt seal the dam and quite literally form the core of the structure. Amazingly, the asphalt core is even able to independently seal cracks caused by dislocation or earthquakes. The mix recipe for the dam seal is accordingly very specific and governed by tight tolerances with regard to the composition and temperature. Each produced batch of the mix is analysed and any deviation from the defined specifications ends in rejection. These strict requirements, combined with the pressure of a tight budget and time schedule, place significant strain on the plant operators to produce a consistent quality while maintaining the highest possible availability. The plant has to run smoothly and needs an experienced team of operators.

EMF – the asphalt pro

EMF has carried out a number of important jobs within the scope of the Romaine projects, including the production of the asphalt seal for Romaine 1. The search for a suitable supplier for an asphalt mixing plant that could meet the high demands placed on quality and mobility led EMF to Ammann. After a comprehensive evaluation, it became clear that an EasyBatch 140 was the right choice. The plant is capable of producing large quantities of high-quality asphalt with a consistent temperature and is also highly mobile and quick and easy to relocate. The

At 40 metres high and 830 metres long, the Romaine 1 dam is a structure of huge proportions.

EasyBatch 140 is a road-mobile asphalt mixing plant installed on just two trailers. The plant is pre-assembled and tested at the factory and can be made ready for operation in just a few days while providing the operator with all the benefits of a fully comprehensive batch mixing plant.

Special demands placed on the plant

The entire plant project was very demanding, especially with regard to the time schedule. The contracts were signed just before Christmas 2013 in the snowed-in town of Victoriaville. The plant was needed to produce the first tonnes of asphalt by May 2014 in Havre-Saint-Pierre, a town located much farther north. Canada has special technical requirements when it comes to asphalt mixing plants; its transport to the north of Quebec during the winter months was also subjected to restrictions concerning trailer loads. The plant's electrical system had to be completely redesigned to meet Canadian standards, and the trailers had to have four axles instead of three to reduce the load on each axle.

A successful project

The project was scheduled to conclude in the summer of 2015. However, EMF and its team of professionals managed to complete all the work before the onset of winter in 2014. This freed up the EasyBatch 140 for other production assignments in Romaine. And so the success story will continue with the next access road or dam core.

Les Excavations Marchand & Fils (EMF)
Les Excavation Marchand & Fils has been the preferred partner for large-scale projects in the fields of energy, road construction, mining, earthworks, demolition, asphalt and concrete production, drilling and blasting, and construction site logistics since 1974. As an innovative and flexible family-owned business in the 3rd generation, EMF is well equipped for the challenges of these demanding projects.

Guillaume Marchand, EMF Project Leader Romain 1:
"The end of the project was scheduled for the summer of 2015. However, our team of professionals managed to complete all of the work before the onset of winter 2014. This freed up the EasyBatch 140 earlier than planned and it is now at work on an airfield project we are involved in."

The asphalt core is built up layer by layer over the entire length of the dam.

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Flexibility that is hard to beat: the new Elba EBC D 110 DW concrete mixing plant owned by the company UHL in Willstätt-Legelshurst, Germany.

FAMILY-OWNED BUSINESS TRUSTS IN ELBA CONCRETE MIXING PLANTS

NO ORDINARY **SPECIFICATIONS**

Founded in 1932, the company UHL in Schutterwald, Germany, is a family-owned business managed by the 3rd generation. The company operates nine quarries, with numerous plants for ready-mix concrete and concrete goods in south-west Germany. The company invested in a new ready-mix concrete plant from Ammann Elba to guarantee quarrying and concrete production capacities at the site in Willstätt-Legelshurst.

Planning activities for the new ready-mix concrete plant began back in 2013. The plant itself is leased out to and operated by the company Kehler Beton Zentrale (KBZ).

Extensive requirement specifications

The customer's detailed requirement specifications defined large-volume storage capacities for five different concrete types and five different types of gravel. Furthermore, a target production output of around 100 m^3 per hour was specified. The greatest challenge facing the design was maintaining the operation of the existing gravel loading station whilst taking the routes of existing and future gravel delivery and pick-up trucks, future concrete trucks and cement delivery operations into consideration.

Specifications also stated aggregate materials required for the mixing plant would be supplied via the wheel loader. The plant should also feature a direct charging conveyor to supply the gravel types most frequently required for concrete production to keep the burden on personnel as low as possible. The mixing plant's design should cater flexibly for loading ready-mix concrete trucks, truck-trail-

Whilst chambers 1 and 2 of the feed bins are loaded directly via conveyors, wheel loaders are used for the other chambers.

ers and self-collectors. A heating system for hot air and hot water was also required to enable the plant's operation in winter. Specifications also included a recycling plant for conditioning residue concrete from vehicles as well as the water used for cleaning the mixing plant to protect the groundwater and the adjacent artificial lake.

Ideal solutions found
Having weighed every option, the choice was made in favour of a flexible Elba Beton-Center EBCD 110 DW concrete mixing plant with a 2.66 m³ Elba EMDW 2500 twin-shaft compulsory mixer. It can load an 8 m³ ready-mix concrete truck in three batches and meets the specified overall output rate of 100 m³ per hour.

"OUR EXPECTATIONS WITH REGARD TO QUALITY AND DEADLINE COMPLIANCE WERE SATISFACTORILY MET. THE PLANT ACCURATELY PRODUCES THE REQUIRED CONCRETE QUALITIES. BEING ABLE TO RELY ON THE MIXING SYSTEM OF IS GREAT IMPORTANCE TO US. THE NEW PLANT IS SET TO CONTINUE MORE THAN 40 YEARS OF POSITIVE EXPERIENCE WITH ELBA CONCRETE MIXING PLANTS."

Heinz Barz, technical manager at UHL

To prevent ready-mix concrete trucks from influencing the traffic flow on the site, the plant has a front portal that trucks and self-collectors can drive under from the side. The mixer discharge funnel also features an automatically swivelling extension for use by self-collectors. Three 60-tonne silos and one 80-tonne silo with a double partition wall provide the required storage capacity. Five components with a total volume of 210 m³ are stored in a 6-part Elba RD 35-210/6 linear storage bin. The approach ramp for the wheel loader is directly attached to the side wall. On the other side, insulated housing offers protection from the cold. Chambers 1 and 2 are loaded directly from the gravel silo to keep the wheel loader's running times to a minimum.

Due to limited space, the control container and the storage or accessory container are stacked on top of each other. Four 1,100-litre storage tanks and the air compressor are ready-mounted inside the storage or accessory container. The container itself is designed specifically for storing substances requiring protection from water. The plant control system provided by the owner is installed in a climate-controlled container to provide the plant operator with a pleasant working environment.

No detail left unconsidered
A 40 mm thick housing was attached to the plant to enable operation in winter. Windows and a generous skylight guarantee daylight and reduce the cost of energy spent on lighting. An Elba ERC 20 recycling plant was attached to the mixing plant. Up to 2 ready-mix concrete trucks can be flushed out simultaneously at the plant. The machine then separates the aggregate contained in the residual concrete or flushed-out material from the cement paste. The aggregate and flush water are returned to the mixing plant for re-use in concrete production, thereby preserving material resources.

The "comfort equipment" ordered by the customer includes wide platforms, internal stairways between the mixer and weighing platform, a mixer cleaning system, visual mixer control with camera, Elba Wear Protection EWP and a drop-down discharge funnel. All are easily maintained and serviced and together assist with the overall appearance of the EBCD 110 DW.

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Ammann counts on lean and efficient production at its production facility in Hennef, Germany.

"WE WORK IN ACCORDANCE WITH THE PRINCIPLES OF LEAN PRODUCTION AND ARE VERY FLEXIBLE WITH REGARD TO PROCESSING CUSTOMER ORDERS..."

A VISIT TO THE PRODUCTION FACILITY IN HENNEF

INNOVATIVE PRODUCTION, **INTELLIGENT** COMPACTION

Things around Hennef have been vibrating for more than 50 years. That is how long compaction machines have been produced in Siegtal near Cologne in Germany. You are cordially invited to take a look behind the scenes of the Ammann production facility.

The mechanical engineering factory in Siegtal, a neighbouring town of Hennef, began producing double vibratory rollers back in 1963. Following a relocation to a larger facility in Hennef, the first vibratory plates rolled off the production line in 1977. Further innovative impulses came when the plant was acquired by the Ammann Group in 1984. The patent application for the triple-shaft exciter, for instance, came from the small town near Cologne in 1998 and was followed in 2006 by the ACE vibration measurement and control system for fully hydraulic vibratory plates. Today, the production facility at the foot of the Siebengebirge hills counts among Ammann's smaller but highly efficient production facilities. Around 140 employees work here at continuously developing and marketing the range of compaction machines. "We really can be proud," says Bernd Holz, Managing Director of Ammann Verdichtung GmbH

Proven experts develop high-tech products for all kinds of applications with the experience gained from decades of constructing compaction machinery.

in Hennef. "Around 14,000 machines roll off the production line here every year." They range from a 60 kg rammer to light and medium vibratory plates to walk-behind hydrostatic vibratory rollers. "We lead the market with our APH range of fully-hydraulic plates," Holz says.

New processing centre and lean production

Significant investments were made in 2014 to further increase productivity at the plant in Hennef. For instance, a new processing centre has been installed that replaced three or four similar facilities and is highly economical to run. Faster packing time and the option to carry out multiple processing steps simultaneously have significantly increased the production of individual parts further still.

The trend toward modernisation is clearly visible throughout the entire production process in the workshops in Hennef. "We work in accordance with the principles of lean production and are very flexible with regard to processing customer orders," Holz says. "We achieve this first and foremost through an ideal mesh between production and assembly and not least through motivated and continuously trained employees."

Production employees work within clearly defined work steps and with the right supply of components to achieve an ideally coordinated, continuous flow production. This avoids unnecessary legwork, optimises material stocks and increases efficiency. Every machine has a "traveller," a log used to record every step of its specific production process.

Things are similar in the paint shop. The machine parts typically painted in bright yellow and mint green are carefully inspected following a high-quality coating process and forwarded to the assembly lines. This is where rammers and vibratory plates start to take on a recognisable shape. Finally, the exciters and plates are "married" with powerful, environmentally friendly engines made by Hatz or Honda.

Popular products

The rugged compactors from Hennef have no problem taking the occasional punch; they are durable and their performance quickly recoups the cost of investment. The fully hydraulic APH vibratory plates, for instance, are the clear favourites in both sales and rentals. "Our customers ask specifically for these powerful compactors as they offer a decisive convenience advantage combined with outstanding productivity," says a large German hirer in summarising the success of these machines. For example, the APH 110-95 vibratory plate achieves compaction values comparable to those of a 10 tonne roller thanks to its water-cooled, three-cylinder Kubota engine – used for the first time in this class – and its unique triple-shaft technology.

The new ACA 2030 and ACA 5546 add-on compactors are further examples. The formerly named ACA 250 and 350 add-on compactors for mini-excavators were recently redesigned. Although compact and agile, these little helpers are outstanding performers. The integrated twin-shaft exciter allows compaction work to be carried out close to buildings. A directional oscillator places far less strain on the excavator arm and the building. The two add-on compactors are especially popular in garden design and landscaping to the extent that their big brothers, the ACA 750 and 1000, will also undergo further development. The redesigned ACA 750 is earmarked for a market launch in the spring of 2015.

Exhaustive tests

Quality made in Hennef has a good name. The high standard of quality is by no means coincidental: each and every machine is subjected to exhaustive function tests before leaving the factory. In addition to functionality, productivity and economic efficiency, every construction company assigns at least equal priority to protecting the operator and the environment. "No one wants to work with a two-stroke compactor that emits a huge vapour cloud when it is started," muses Holz. "The situation with our compactors and their modern four-stroke engines is very different. We take the issues of reducing noise and hand/arm vibrations and other work safety aspects very seriously." That is why every new or redesigned machine is subjected to an intensive risk analysis before the start of serial production. "We look at

Both small rammers and powerful walk-behind rollers are assembled by qualified experts.

Every compaction machine is put through its paces prior to leaving the factory.

The APH 110-95 is not only 25 % faster compared to vibratory plates, it also boasts the least hand/arm vibration.

Ammann Verdichtung GmbH in Hennef and its administration building (above centre), production and assembly hall and test site.

As Managing Director of the Ammann facility in Hennef, qualified engineer Bernd Holz champions continuous innovation and quality.

Ammann

many aspects relating to the building site that could have an influence on performance," says Wladimir Drisner, Commercial Manager Compaction at Ammann Hennef, in describing the process. Detected risks are mitigated with targeted counter-measures in the form of design changes. Only machines that can withstand the high, everyday demands go into serial production.

Training events and conventions

Of course, the experts know that progress and practice must remain compatible. It is important that the operators are adequately trained in using the machine and know how to handle the new technology. That is why innovative new compaction features – such as ACE and GPS – count among the focal points of regular training events held at the Hennef facility.

Dealers are also regularly trained in Hennef in addition to operators. Dealers meet at conventions such as the International After Sales Conference held in September 2014 to bring their knowledge up to date with the aim of providing better customer care and advice.

Events of this nature not only convey new knowledge, they also bring people closer together. After all, the construction sector is one big family, and Ammann is a well-known member of the family who people are always pleased to see – including those in the field of compaction.

Ready for the construction industry: dozens of new compactors are shipped to customers and dealers around the world every day.

Ammann

One of the many training stations at the After Sales Conference: refurbished and factory-tested used machines are very popular on the secondary market.

AFTER SALES CONFERENCE MACHINES

DEALERS FOCUS ON
CUSTOMER SERVICE

Forming – Storming – Norming – Performing[1]. That was the motto of the second Ammann After Sales Conference that took place mid-September 2014 at the Ammann plant in Hennef, Germany. More than 80 visitors from across the globe came to the event to learn more about the latest innovations and technology from the house of Ammann.

Around 80 Ammann retail dealers from around the world – Germany, Australia, Thailand and other locations – took part in the 2nd After Sales Conference in Hennef. Ammann sees its dealers as part of the team responsible for strengthening and further expanding the company's global position. The event therefore took place under the motto of Bruce Tuckman's team theory "Forming – Storming – Norming – Performing," with a focus on norming. Ammann depends on its retail dealers. Company and dealers together decide how the partnership can be strengthened and responsibilities shared more effectively. A number of stations relating to various topics were set up and each one visited by small groups of dealers to motivate them to share their experiences and ideas.

Used machines

At this station, Kurt Erker, Manager Ammann Used Equipment, explained the used equipment concept. Used vibratory plates can be completely overhauled and repainted at the factory, making it virtually impossible to tell them apart from new machines. Furthermore, Ammann puts all kinds of used machines up for sale on its proprietary Used Equipment Platform. The machines are either overhauled

[1] Phase model of team development according to Bruce Tuckman

Saving time through automation: an Ammann employee presented the new online platform for ordering spare parts to the dealers.

Who would be best at using an AFW 350 E to pave an area of 3

and repainted or left in the condition in which they arrive.

Replacement orders via the online platform

Quick and easy ordering of spare parts is one of the most important prerequisites for enabling the fast repair of a customer's machine. Concrete examples were used to show participants how simple and efficient it can be order spare parts online. Any order placed anywhere in Europe before 4 pm will be delivered the next working day.

SWOT analysis

A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was carried out at the first After Sales Conference held two years ago at the production location in the Czech town of Nové Město. It provided important input into the further development of products and after sales services. The SWOT analysis carried out during this year's event provides detailed information on what could be improved. By sharing their tips, dealers are able to contribute significantly toward resolving all kinds of problems.

Road construction

The greatest challenge at the After Sales Conference consisted of paving a stretch of road. Instead of real asphalt, the AFW 350 wheeled paver was filled with cold material and the participants were given the task of paving a curved stretch of 30 square metres as quickly as possible. "I am always impressed by what a paver can achieve fully automatically with its levelling system," says an astounded participant from Finland. It was of essential importance to Ammann to have the dealers operate the paver themselves so they could provide concrete feedback.

Rammers and vibratory plates

2:12 minutes – that's all it takes to change the plate on an Ammann ACR 60 rammer. Even participants with little experience needed at the most 7:35 minutes thanks to the ram-

There was dust in abundance as participants tried to master th trench roller.

Who would be the fastest at changing the plate on an ACR 60? A German dealer won the competition with a speedy 2:12 minutes.

The brand new ARP 95 tandem roller convinced one and all thr maintenance friendliness.

0 square metres with the greatest accuracy?

Who's brave enough to take on a 40 degree incline with an ASC 130?

e obstacle course with a remote-controlled Rammax 1575

ough optimum accessibility and thus high

Ammann

mer's user-friendliness. Little competitions like this one brought a fun aspect to the practice-oriented stations and served to demonstrate how service-friendly the machines are.

Trench rollers

The task at this station was to steer an articulated Rammax 1575 trench roller around an obstacle course in the shortest possible time. Many a participant soon discovered that the infra-red remote controller automatically deactivates for safety reasons as soon as the distance between machine and operator is less than 2 metres. Some lost a lot of time because they were standing too close to the machine. They were then able to see for themselves just how accessible the service components are – thanks to the two completely unfolding hood sections on top of the trench roller.

Rollers with Small Ride

In this competition, the participants tried to move the machine as gently as possible. The team with the most water left in the buckets attached to the roller after 10 minutes won the competition. The discussions at this station centred around the driving behaviour of rollers equipped with the "Small Ride" function and how the behaviour can be adjusted using a laptop and special software. Participants sent by their dealerships to one of the Czech training events at the Ammann Training Centre in Nové Město will find out exactly how that works in detail.

Test of courage

The participants' nerves were put to the test just to round things off. They had to drive an ASC 130 single drum roller weighing 13 tonnes up a 40 degree incline. "I didn't feel unsafe at any time at all," said a Russian participant. "The machine is always stable thanks to its low centre of gravity. The rear view is also fantastic so I could reverse without any problem." A brand new ARP 95 was also on display alongside the "ASC Hill". The machine had only just come out of the production hall a few days before and was presented to the public for the first time in this setting. The machine sets new standards with regard to serviceability. All maintenance points are located behind service doors outside of the engine compartment. The cab lifts up for even easier access to the relevant components. "At last! An easily accessible water tank," said one participant as he saw the discharge outlet for the water tank. It makes cleaning the water tank so much easier.

The event was rounded off with product displays, presentations, discussions and a relaxed evening event.

The second Ammann After Sales Conference received praise from many participants. In particular, the chance to actually drive the machines resulted in lots of positive feedback and many a suggestion. The participants left the event with a positive attitude and are looking forward to the next After Sales Conference to be held in 2016.

Ammann

High-quality roads are only possible if everyone involved understands the process chain from asphalt production to transport and paving and final compaction.

AMMANN PAVING CAMPUS

SUSTAINABLE PRODUCT TRAINING ON ROAD PAVERS

The key to building an asphalt road that meets requirements and will last accordingly lies in the interplay between the individual production steps. Ammann strengthens the process, product and application knowledge of its dealers and customers by providing targeted training programmes. For example: the Ammann Paving Campus.

A road surface must guarantee certain functions such as evenness, noise reduction and driving comfort for the planned duration of use. This is only possible if the paved asphalt layers have the necessary structural properties such as weather resistance, wear resistance and sufficient resistance to fatigue. They all stand in direct relation to how the materials produced at the mixing plant are processed on the construction site.

Process knowledge as a basis

The establishment of the "Ammann International Training Centre" (AITC) in 2010 has ensured that customers receive training in every area of the process chain of production, transport, paving and compaction in the fields of product innovation, product knowledge and application technology. The resulting continuous exchange of experience enables Ammann to establish itself as a leading partner in the above areas. The first Ammann Paving Campus was held at the AITC from 20 to 23 October 2014 to support Ammann's own high claims in the product segment for pavers. The knowledge conveyed during the theoretical instruction was subsequently put to the test in practical situations. Explanations on asphalt production formed the cornerstone for more advanced topics. They focused on the types of aggregate, filler and bitumen used in an asphalt mixing plant in the production of

Pavers and in particular their screeds are of pivotal importance to the quality of the road surface. All the more important, then, to explain in detail how these complex machines work during the training event.

The theory explained in the classroom was subsequently put to the test.

different types of asphalt mixes. This was followed by a process-based description of the five core components of an Ammann asphalt mixing plant. The ecological and economic differences between the available heating systems were also discussed.

The key to the perfect road

The paver product training kicked off with the components of a road paver and the differentiation in track and wheel variety to convey the necessary technical process knowledge. The training looked at the different screed types (vibration only, rammer and vibration, and high-compaction machines), screed designs (hydraulically extendible screed or rigid screed) and their different regional areas of use. This was followed by an in-depth look at understanding the principle of the floating paving screed. The key to a continuous and smooth adaptation of material thickness lies in the interaction between the four main forces of lifting force, screed weight, material resistance and tensile force and the balance between them as well as the intentional use of inertia when the screed floats up and down.

The technical training relating to the levelling systems available on the market and their possible uses (mechanical and/or ultrasonic scanning) was followed by applying the acquired knowledge on how a paving screed works in practical exercises.

Organising a construction site properly

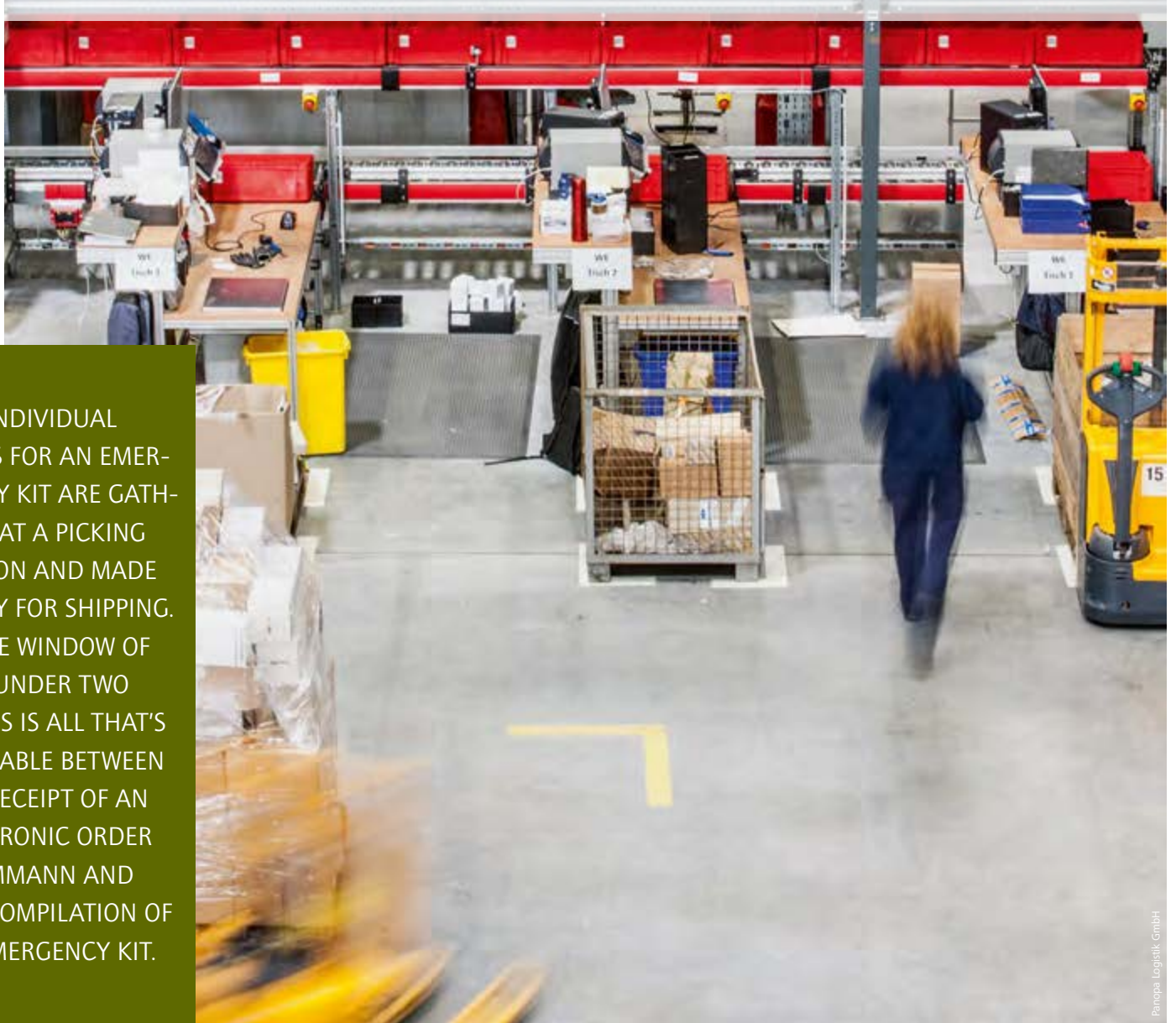
Building site management and work preparation is a subject of significant importance to Ammann. Experience shows that around 86 % of all paving mistakes are caused by insufficient and desperately needed work preparation. This block took a detailed look at smoothing the profile of an uneven road (for example a hanging hard shoulder), the correct provision of material, the correct degree of auger tunnel filling, the influence of different asphalt temperatures on the screed's floating behaviour, the necessity of a batcher and the knowledge of additional pre-compaction caused by the screw conveyor.

Ammann sees itself as a manufacturer of high-quality products in keeping with the spirit of the times as well as a provider of numerous sustainable training concepts. Motivated by the quantity of positive feedback from around the world regarding the first ever Ammann Paving Campus, the seminar will be held again in 2015.

AFTER SALES SERVICES MACHINES

SPARE PARTS **READILY AVAILABLE** ACROSS EUROPE

Whether pavers, rammers or rollers – Ammann can deliver spare parts or an emergency kit for any machine type to any location in Europe within 24 hours. As part of after-sales business activities, this spare-parts service is becoming ever more important – after all, road builders will not tolerate machine downtimes when it comes to pavers and rollers.



THE INDIVIDUAL PARTS FOR AN EMERGENCY KIT ARE GATHERED AT A PICKING STATION AND MADE READY FOR SHIPPING. A TIME WINDOW OF JUST UNDER TWO HOURS IS ALL THAT'S AVAILABLE BETWEEN THE RECEIPT OF AN ELECTRONIC ORDER BY AMMANN AND THE COMPILATION OF AN EMERGENCY KIT.

Panopa Logistik GmbH

Ammann has appointed Panopa Logistik GmbH of Stockstadt am Rhein in Germany with the task of handling spare-parts logistics to make sure that every part, from screw to oil filter, arrives in good time at the local Ammann dealership or directly on site. Both parties stand to benefit. With the help of the new warehousing system introduced by Panopa, Ammann can reduce logistics costs and supply machine parts from a location in Germany to the internal European market on time without any customs barriers.

After the consolidation of four previous storage and dispatch locations to just one, in Dortmund, Ammann then intended to expand its spare-parts business, in particular with regard to pavers. The contract logistics provider relocated its spare-parts logistics service for Ammann from Dortmund to a new multi-user warehouse in Stockstadt am Rhein, south of Frankfurt/Main, to ensure an even better fulfillment of requirements.

Impressive figures

Ammann's parts programme for machines comprises between 60,000 and 70,000 components, of which 21,000 are most frequently ordered, ranging from a single screw or a cab roof for a roller. Between 400 and 600 shipments leave the multi-user warehouse every day.

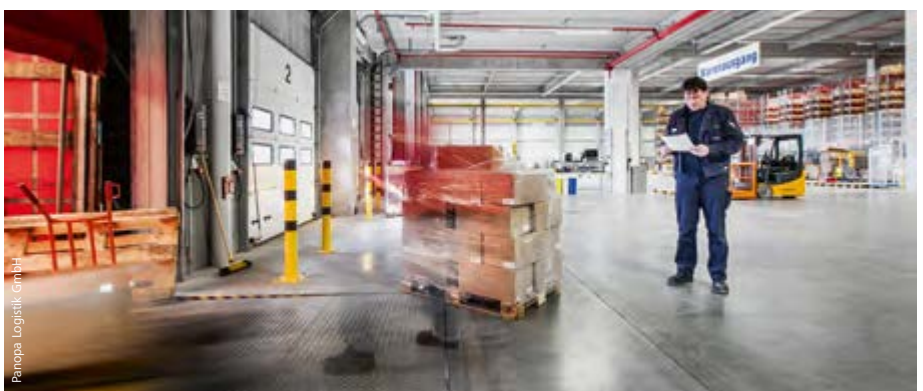
Ammann uses an SAP-based enterprise resource planning system (ERP) to process incoming orders. The ERP system ensures that all the spare parts and components required for construction machines are available in the right place at the right time and in the right quantity. Orders from dealers reach the Ammann headquarters via the ERP system and are forwarded to the warehouse management system used by Panopa.

Delivered within 24 hours

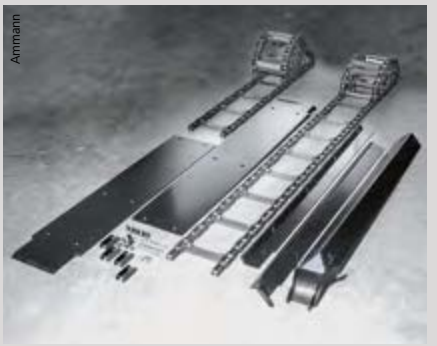
Emergency Kits are one of Ammann's specialities. They contain replacements for the most important parts for each type of machine, around 10 to 20 individual parts per set. "The local Ammann dealer should always have an emergency kit in stock," says Marcel Keller, head of Ammann Group's spare parts service for machines. "We try to sell an emergency kit together with each machine." Keller's main basic condition: "Every order that reaches Panopa by 4 pm must be shipped on the same day and reach the customer within 24 hours – throughout Europe."

Keller says 4 pm is the cut-off time for the logistician, meaning orders that arrive before 4 pm must be shipped on the same day. The pick-up time for Panopa's transport partners is between 5 and 6 pm. Employees therefore only have around two hours to pick and package ordered parts. The individual components of a kit are stored at different locations in the warehouse. An intelligent conveyor system brings all the picked goods to a specified packaging station at a specific time. This ensures that a shipment is ready for delivery within a short period of time and will reach its destination the very next day.

Is it all there? A final check before the spare parts for Ammann machines are handed over to shippers between 5 and 6 pm.



Panopa Logistik GmbH



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Emergency kits for pavers

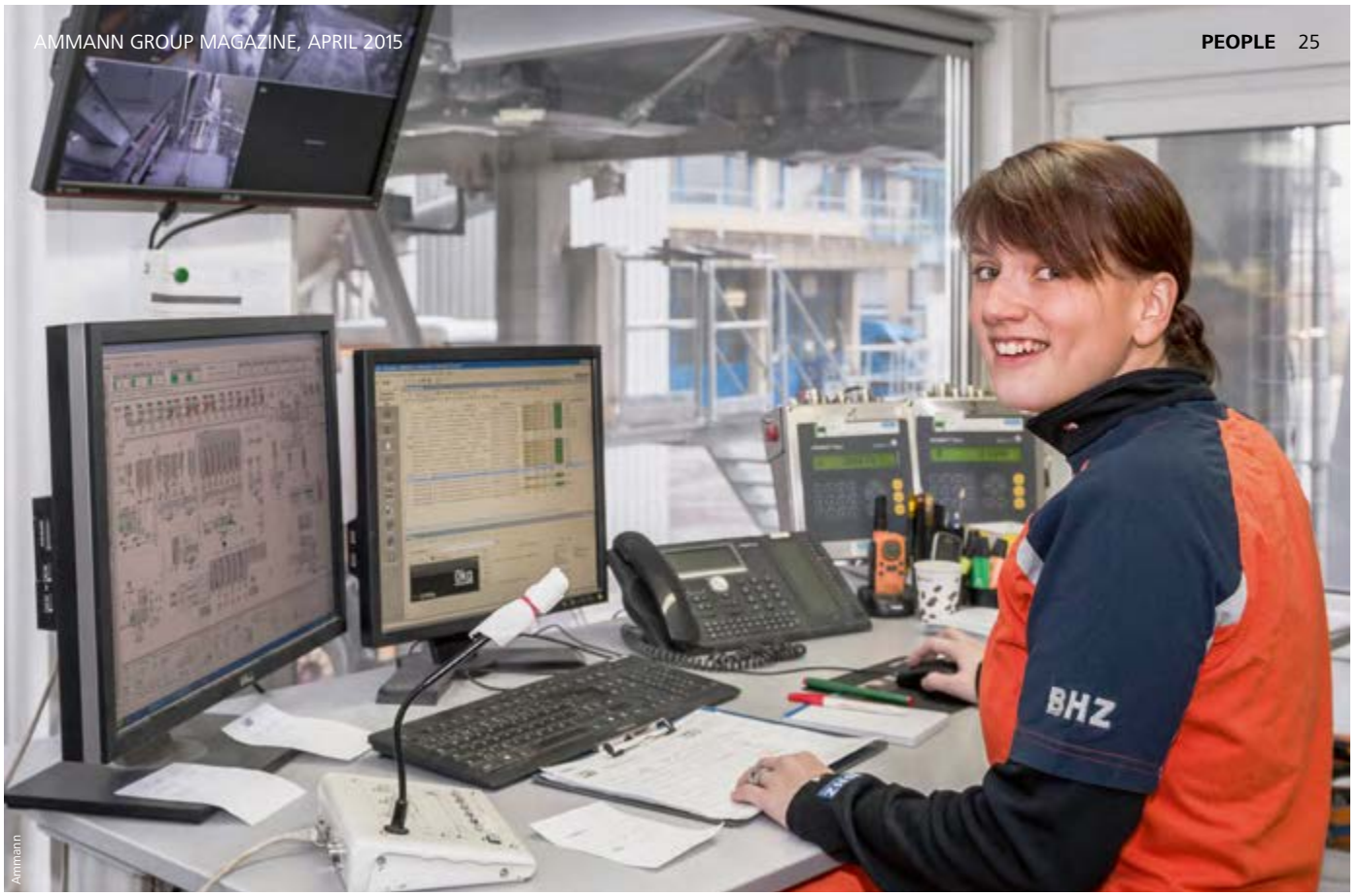
Road pavers from Ammann are often on-site wherever a new road is under construction or an existing road is being resurfaced somewhere in Europe. In the event of a machine standstill – especially if pavers are affected – every minute costs a lot of money and causes considerable trouble for all involved. Ammann has broken new ground in regards to keeping critical paver components in stock. Orders for paver component replacements were closely monitored around the world in recent years, and inventory was adjusted accordingly to optimise parts availability. The availability of emergency kits is now guaranteed for every Ammann paver model. The emergency kits serve to simplify commissioning and servicing pavers on site, rectify serious malfunctions without delay and ensure they are ready for use as soon as possible. Additionally, all wear parts sets are readily available from stock at any time. Having an emergency kit readily at hand is therefore not only an option but a clear competitive advantage for every owner and operator.

"PANOPA PLAYS A MAJOR ROLE IN THE HANDLING OF OUR REPLACEMENT PARTS BUSINESS. THIS INCLUDES OUR ABILITY TO PROVIDE SPARE PARTS AND EMERGENCY KITS FOR ANY MACHINE TYPE WITHIN 24 HOURS ANYWHERE IN EUROPE."

Marcel Keller, head of Ammann Group's spare parts service for machines

HAS OVERCOME A NUMBER OF OBSTACLES DURING HER AS YET SHORT CAREER: PLANT OPERATOR CORINA KÄGI.

Ammann



"I have always found technology interesting, even as a child," explains Corina Kägi seated at the as1 plant control system of "her" Ammann Uniglobe.

A COMPLETELY NORMAL RARITY

MASTER OF HER REALM

An asphalt mixing plant with a secretary – whatever next? It was a question asked by many callers and truck drivers wanting to collect asphalt from BAB Belag AG in the Swiss town of Birmensdorf near Zurich in May 2010. No, this plant did not have its own secretary. But it did have a female plant operator. Corina Kägi's name quickly did the rounds at the time.

A rarity in the field, then? Maybe for others. But less so for Corina Kägi. At this point, we should really be reporting on how a woman stands her ground in a man's world such as road construction. But we would like to start with something completely different. Namely with Corina Kägi's hobby – because it leads to characteristics that are indeed both defining and conducive.

Corina Kägi has been dedicated to athletic sports for nearly 20 years. She specialises not in a specific discipline but rather in combined events – or quadrathlon, to be more precise. Until now. That's because this year will see Corina Kägi try her hand at the heptathlon for the first time. A heptathlon comprises high jump and long jump, javelin and shot put, a 200 m and 800 m race and 100 m hurdles. She considers the later to be a real challenge and is therefore training more often in the discipline. But she is used to overcoming obstacles. It all depends on the right length of stride between hurdles and on the right timing for the jump. That applies not only to sport.

Taking the first hurdle against the trend

Today, the 25-year-old sees her status as a rarity more in the world of sports and doesn't make much of a deal out of it. It is the way it is and that is OK. Back in school, her other field of interest apart from sport lay more in the realm of science. Math, chemistry, physics – these subjects sparked her interest, and she has a talent for drawing, too. It became clear to Corina Kägi early on that she did not want to pursue a typical career for women. A technological focus would be better – for example, something like her older brother's studies in design engineering. Her parents did nothing to dissuade her. On the contrary. One day, her father drew her attention to the profession of multi-skilled mechanic, or polymechanic to use the Swiss term. He probably had an inkling just how suitable it would be for his daughter.

Ammann

Drawing samples and checking recipe specifications count among the plant operator's routine tasks.

In Switzerland, the profession of polymechanic is a recognised trade that unites the former professions of automotive mechanic, fine mechanic, tool-maker and machine mechanic in one profession. After a four-year training period, polymechanics are able to produce workpieces using tooling machines such as lathes, drills, milling and grinding machines. The training course focuses on programming, setting up and operating CNC machines. Polymechanics also learn how to construct plants and machinery as well as maintain them. They are capable of commissioning plants and machines and of planning and monitoring production processes. These are ideal preconditions from the viewpoint of a mixing plant operator. However, Corina Kägi did not discover the production of asphalt until some time later.

This is because she was apprenticed by Soudronic AG, a company involved in manufacturing production plants for metal packaging products. The company exported its tin can welding devices around the globe. The fact that her year consisted of eight boys and just one other girl was no big deal for her classmates or trainers. Corina Kägi did not encounter reservations on account of her gender until May 2010. That is when she started her career at BAB Belag AG in Birmensdorf.

Taking the second hurdle to prove it can be done

In 2010, the company BAB Belag AG Birmensdorf that belongs to BHZ Baustoff Holding Zürich AG and operates five asphalt mixing plants in the greater area of Switzerland's largest city, was opening a new plant in Birmensdorf. The company was looking for personnel for the job. And so it came that anyone wanting to obtain asphalt from the plant in Birmensdorf came face to face with a female plant operator and deputy site manager. Even the truck drivers soon lost their scepticism, especially as cooperation went really well, with the exception of a few teething problems.

The plant, an Ammann UniGlobe with an RA 100 recycling drum, produces on average more than 120,000 tonnes of asphalt each year. The mixed mineral storage silo holds 320 tonnes. The plant's mixing capacity is somewhat limited by a 3-tonne mixer. Each one of the plants operated by BHZ Baustoff Holding Zürich AG offers a speciality. In Birmensdorf, it is mastic asphalt. Shift work is sometimes necessary to satisfy all the incoming requests to collect asphalt. This calls for careful planning as to when what type of asphalt should be produced to avoid a backlog of trucks waiting to collect their load. Coordination takes practice, and that is something no plant operator has as a newcomer. Once again, Corina Kägi's sporting ambition helped her emerge victorious. She soon noticed that when others find out a woman is interested in technology, it can be quite a bonus.

The young plant operator made use of this fact to increase her knowledge whenever the opportunity arose. For instance, she learned

how to weld, an activity she would have liked to have spent more time doing. She threw away a chance to do just that, but instead fulfilled a dream. That is why the trip abroad planned for after the apprenticeship along the lines of "when if not now, and where to if not as far away as possible" has taken on a touch of melancholy. Of course, the three months she spent in New Zealand, mainly to improve her English skills, were an unforgettable experience. But they cost her the chance of being involved in the first inspection of the asphalt mixing plant. It would have given her many insights all at once.

Hurdles three and four

Thirsty for knowledge, Corina Kägi was to benefit from a coincidence just a year later. Five industry associations, all of which were involved in recycling raw materials, had established a training course leading to a federal qualification as "raw materials recycling specialist". The reason was simple: until then, no appropriate and comprehensive training course was available to the operating personnel of recycling plants, which include asphalt mixing plants. Corina Kägi took part in the first ever training course and acquired additional knowledge in 10 modules.

She was able to put it to good use. For instance, spatial restrictions dictated a solution when the asphalt mixing plant received its mastic asphalt unit, which in turn necessitated a new filler heating element. Although the asphalt mixing plant is strategically well placed, the plot on which it stands is very small. Building tall was unavoidable. Ammann as the manufacturer and BAB Belag AG Birmensdorf as the plant operator together developed a solution that made the production of mastic asphalt faster and easier.

The fifth lies in a curve

Corina Kägi hasn't worked on the plant since November of last year, despite the fact that she really liked the job. All the more so as "a super team was at work that really made things happen". But at the moment she is taking the next hurdle in the form of a two-year training course in technical business administration. In her opinion, plant operators are highly specialised and their view restricted as a result. The training course will expand her prospects, open up new horizons and offer an opportunity to look at other areas of the company. In the future, she could manage pre-orders and perhaps also work in central scheduling. She is gaining new insights as to how prices come into being and whether a plant would be profitable.

The company is supporting her endeavours, not least because it is also continuing to grow and it is a good thing when, for instance, people working in plant management have actually seen one from the inside and could take it apart – people who know what they are talking and making decisions about.

Corina Kägi already knows how much she will miss mechanical work. It is rewarding to carry out repairs, seeing immediately what has been done and feeling proud when something is working again or tough challenges have been mastered – such as the production of large quantities in a short time. We think Corina Kägi can already be proud of what she has achieved in so little time since her apprenticeship just six short years ago. She is simply a master of her trade – and every 100 m hurdles race has 10 hurdles.

As a plant operator, Corina Kägi knows the Uniglobe inside out and is also responsible for its maintenance.

Ammann

Ammann

SWITZERLAND

AMDURIT WEAR PROTECTION – **ONE SOURCE FOR EVERYTHING**

Amdurit is wear protection made by Ammann with a much longer lifetime than wear-proof steel. Experience shows that Amdurit® significantly lowers operating costs. A longer lifetime also reduces the amount of costly assembly and dismantling work on the plant. Potential applications are virtually limitless thanks to different material thicknesses and qualities, as well as the option to produce original parts for asphalt or concrete mixing plants or gravel plants. A range of fastening methods, such as welding, clamping and bolting, make it easy to replace the original part with Amdurit wear protection.

Complete "in-house" production by Ammann

The previous production method has been optimised and now guarantees an even better quality. The Amdurit build-up welding process, truing and plasma-cutting are carried out efficiently and in top quality at the comprehensive production lane at the Ammann headquarters in Switzerland. The plasma-cutting plant is also designed for further processing special steel. Despite the hardness of the material, the cutting plant can also be used for drilling, counter-drilling and tapping. The Amdurit material is then further processed at various Ammann facilities to make it ready for direct application to plant components. From design to production and further processing to installation on site – everything is handled "in-house" by Ammann. Every aspect of manufacturing competence comes from a single source. Amdurit – Wear Protection made by Ammann strives for continuous improvement to ensure its customers receive the best possible service.

The Amdurit production lane at the Ammann Group's headquarters in Switzerland. Everything is handled by a single process – from build-up welding (in the foreground), to cutting and mechanical processing, to forming on a steel press.

The plasma machine is used to cut Amdurit plates to size. It is then used for mechanical post-processing in the form of drilling, counter-drilling and tapping.

A crude gas channel on an asphalt mixing plant clad in Amdurit plates.

CZECH REPUBLIC

SINGLE-DRUM ROLLER AT WORK **IN THE ORCHARD**

Ammann

A new application for lightweight single drum rollers was found in the compaction of access and connection tracks in fruit orchards.

Ammann's lightweight single-drum rollers can be used for many different purposes. They achieve outstanding compaction results despite their compact design and are suitable for virtually any kind of substrate. Even with a generously dimensioned working area for the machine operator, these rollers are nonetheless easy to transport thanks to a maximum height of 2.48 metres. Additionally, a range of technical options leaves nothing to be desired: they include an enclosed heated cab, a dozer blade and a fully-automatic traction system for maximum climbing ability, to name but a few.

Orchard application

Long-standing Ammann partner and dealer KOHÚT A SPOL. spol. s r.o. in the Czech Republic has service vehicles in operation to ensure that Ammann machines are serviced and maintained and benefit from a reliable supply of spare parts. It's thanks to the collaboration with KOHÚT A SPOL that an ASC 50 was offered to VVISS a.s., a company with many years of broad experience in the cultivation of fruit. Over the course of a one-month trial period under specific orchard conditions, the machine passed with flying colours and was purchased by the company. The conclusion of this unusual deal has led to the discovery of another interesting market segment for earth compacting rollers in the Czech Republic.

The sister machine of the ASC 50: an ASC 30 with dozer blade.

Ammann

The ASC 50 HDPD has since been used to compact main access routes between the individual rows of fruit trees. The use of a dozer blade on the machine serves to eliminate ruts and prevent additional substrate layers from becoming detached. Subsequent compaction prevents any further formation of uneven surface areas. Simultaneously, it also reduces substrate erosion to a minimum, thereby extending the intervals between maintenance work on the tracks.

Benefits at a glance

- Ideal visibility for the driver
- Low centre of gravity
- "Twin-Lock" traction control (ASC 30/50)
- Hydraulic dozer blade with tilt function

ASC 50 HD single drum roller

*PD
Smooth or *padfoot drum

Working width	1400 mm
Operating weight	4500 kg
Engine	Kubota V 3600

Ammann

GERMANY

ASPHALT CUSTOMER SEMINAR IN HILDESHEIM –

FAMILIAR BUT ALWAYS GOOD FOR A SURPRISE

Since the 1980s, Ammann has regularly sent out invitations to seminars for plant operators, plant managers and mechanical engineers. Every seminar is unique. First, the topics reflect what is currently of interest and, second, the location changes every year. The seminar held this spring in Hildesheim saw "old friends" who have many times before meet up with newcomers. And as the Ammann plant in Alfeld was just half an hour away, it made perfect sense to invite the customers to have a look around.

Active exchange

It was the first time that topics such as wear protection, service, control systems and practical tips for plant operation were discussed in small workshops. What works well? Where does the shoe pinch in everyday operation? What does the market want? Ammann wants to make direct use of plant operators' experience to be able to react quickly to customer needs and wants. On the other hand, the customer gets to hear the latest news from the world of Ammann asphalt mixing plants and has an opportunity to see things from the manufacturer's viewpoint. A fruitful exchange at eye level is at the heart of every seminar. Central Europe, and in particular Germany and Switzerland, have been the driving force behind fundamental advancements in asphalt mixing plant technology of the past few decades. Embracing customer relationships as a practice-related source of input for improvement and innovation plays a major role in this development and continues to challenge Ammann on a regular basis. And one thing is sure: the support programme including a convivial get-together is also a central and very important feature of the three-day Ammann customer seminars.

The Ammann seminars in Germany have proved to be a huge hit with plant operators, plant managers and mechanical engineers for many years. The varied programme is aimed at encouraging and deepening the exchange between plant manufacturer and plant operator.


Ammann

Reliably working 18-hour shifts for more than 5 years: the ASC 100 in a South African coal tip.

SOUTH AFRICA

30,000 OPERATING HOURS AND **JUST 5 MILLIMETRES OF WEAR**

ELB Equipment, the official sales partner for Ammann compaction and paving machines in South Africa, recently received a report from its customer "Eric's Roller Hire" of Jetpark. The report stated that one of the ASC 100 single-drum rollers had reached the incredible number of 30,000 hours of operation. "Eric's Roller Hire" is a plant hire company that has 15 Ammann ASC 100s in its machine pool.

In continuous operation for more than 5 years

The machine in question was purchased in 2009 and immediately set to work at a coal tip, where it worked 18-hour shifts. Compaction on these coal tips is critical as tipped coal has an inclination toward spontaneous combustion. After 30,000 hours of operation, the single drum roller shows a mere 5 mm of wear on its drum. The engine was recently replaced on account of normal wear and tear. With the exception of a few minor repairs, the machine has worked without fail year-in and year-out. Eric Laynes, owner of "Eric's Roller Hire," believes the secret behind this unbelievably long period of service lies in routine maintenance and Ammann's reliable production quality. Laynes goes on to explain that the low maintenance costs and outstanding fuel consumption rates make this machine extremely low cost.

Well-thought-out machine concept

The ASC 100 single-drum roller is unique in that it has no powered rear axle, which in turn means that the engine can be installed at a lower height for a lower centre of gravity. The result is better contact between roller and substrate and therefore a better compaction result. The two hydraulic engines powering the rear wheels have fewer moving parts and therefore less wear. The ASC 100 single-drum roller is assembled at the Ammann plant in the Czech Republic. The combination of Swiss perfection and best Czech manufacturing technology culminates in the production of a rugged and well-designed machine.

A number of ASC 100s from "Eric's Roller Hire" have been at work on the coal tip for many years.


Ammann

GERMANY

ELBA MODULE EM-H PRODUCES **INNOVATIVE COLD MIX**

Since its foundation in 2009, the Innobit company of Kaiserslautern, Germany, has focused on the production and distribution of innovative construction materials for road building, but in particular the production of bitumen emulsions. In the spring of 2014 the company began planning a production plant for manufacturing a new reactive asphalt mix named Innophalt, with the intention of taking the market by storm as an alternative to conventional cold asphalt.

Hardened within minutes

Innophalt Reactive Cold Asphalt is a cold-processed, solvent-free asphalt for repairing roads and pathways in all construction classes. The pourable material is spread and compacted. A reaction then takes place. The use of environmentally friendly materials prevents the emission of solvents. After processing, the asphalt attains its first hardening stage after just 10 minutes and the road can be opened for traffic.

Perfect fulfilment of specifications

Ammann Elba was invited to design an automatic production plant for the production of Innophalt. The proposal was based on an Elba EM-H module with an Elba EMPG 750 planetary counterflow mixer. The combination enables the required batch production capacity of 0.5 m^3. With regard to the special storage requirements for the raw materials and for packaging the end product, Ammann recommended reputable specialists to Innobit and defined the specified interfaces.

The company Innobit produces the innovative cold mix named Innophalt in a new mixing module made by Ammann Elba.

The EM-H module with the EMPG 750 was installed on a platform in a hall on site. The pre-hopper on the module is designed as a scale and weighs the required amount of aggregate materials. The materials are stored in a special storage bin outside the hall and fed into the pre-hopper via a special feeder screw. The binding agent silo is also located outside the hall and is connected to the binding agent scales on the module via a standard cement screw conveyor. Emulsion is fed directly into the EMPG mixer while the control software actuates the valves.

Integrated control

The entire plant is operated automatically by the Ammann as1 control software. The recipes needed for production are stored in the as1 system. They enable different end products to be mixed and reported to the packaging machine. Printers are connected to the as1 software to produce metering reports and other evaluations for the purpose of documentation.

INTERMAT Paris

20-25 APRIL 2015
PARIS-NORD VILLEPINTE – FRANCE

TRADE SHOW PREVIEW

FRANCE

TENTH APPEARANCE AT THE **INTERMAT**

Ammann is once again presenting its extensive product range at the Intermat 2015, namely at Stand F 041 in Hall 5b of the Villepinte exhibition centre in Paris-Nord. Ammann has exhibited at the Intermat ever since it was first held and will therefore celebrate its 10th appearance at the well-known French trade show from 20–25 April. Visitors to our stand can look forward to seeing many exciting innovations on more than 800 m² of exhibition space, where y our new QuickBatch asphalt mixing plant will be the centre of attention.

Leading in plant construction
The new QuickBatch batch asphalt mixing plant combines Ammann's tried-and-tested mixing and plant technology in use throughout the world with international operating requirements. Equipped with every advantage of a stationary mixing plant, it has been optimised for transportation and handling assignments at frequently changing locations. The QuickBatch has been developed and designed on the basis of the container principle, so transport and set-up costs are substantially reduced without compromising performance, quality or flexibility. The QuickBatch offers all the functions and options of conventional plants – for example, it can also be equipped with Ammann's full range of popular recycling solutions. Furthermore, just over a year ago, Ammann announced the acquisition of internationally renowned concrete mixing plant manufacturer Elba-Werk Maschinen-GmbH in Germany. The acquisition enabled Ammann Group to round off its portfolio and the company will present three high-quality mixers for the production of concrete at the Intermat.

Production expansion in the field of compaction machines and pavers
The complete range of Ammann compaction machines, meanwhile, is produced by three of our highly specialised facilities. Ammann has experts from every field of compaction to ensure its customers fully benefit. The ARP 95, the youngest addition to the family of articulated tandem rollers, will also be present at the Intermat 2015.

In cooperation with Axroad, our French dealer for asphalt pavers, we will also present our complete range of pavers designed for every demanding purpose.

Come and see us at the Intermat!

Ammann

TRADE SHOW REVIEW

INDIA

Ammann Apollo at the **bC India**

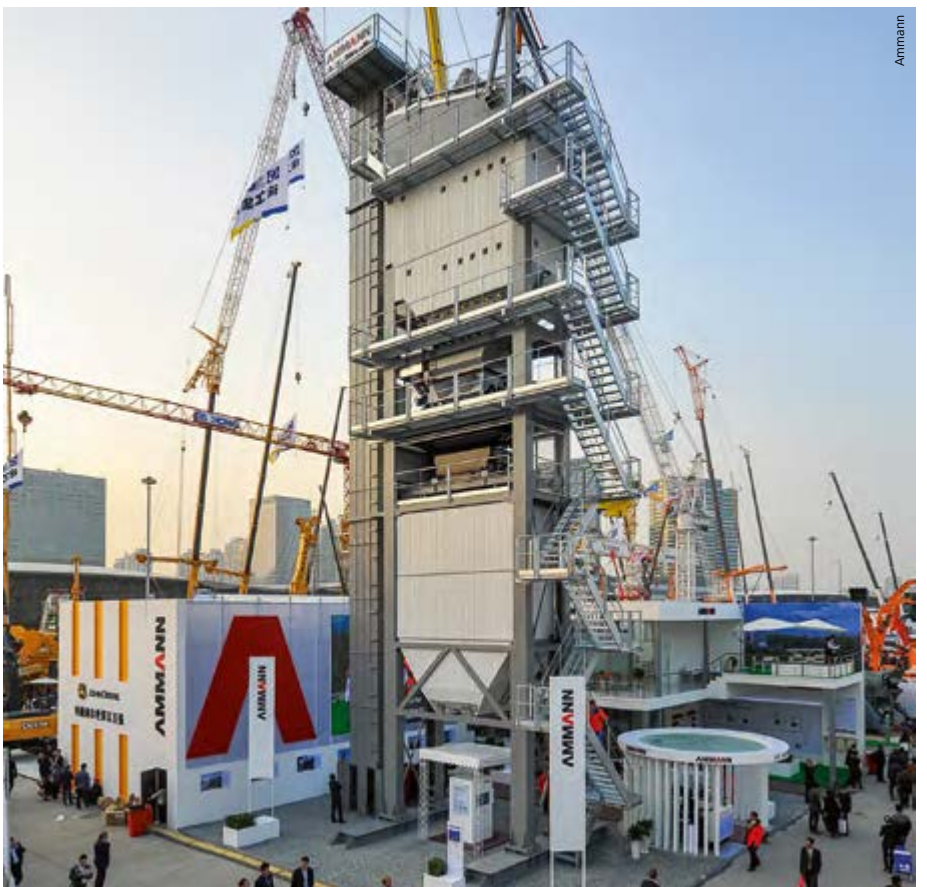

Ammann

The Bauma Conexpo Show – bC India, that took place from 15–18 December 2014 at the India Expo Centre in Greater Noida/Delhi has further increased its market significance. More than 26,000 visitors and 635 exhibitors from 25 countries took part in the third edition of this international trade show for construction machinery, building material machines, mining equipment and construction site vehicles. Ammann Apollo presented the Ammann product range at an impressive booth of more than 1,500 m². Visitors to the Ammann exhibition stand were impressed by the range of products on display and their advanced technology. As a highlight, Ammann Apollo presented two new asphalt mixing plants: the Uniglobe 260 and the recently developed Eco-Batch 80 that is setting new standards in the field of asphalt batch production. To cap it all, Ammann Apollo had the honour of accepting the award for "Best Seller – Asphalt Finishers". The award winners were selected by a jury of specialists from the field. Ammann Apollo received the coveted award at the Equipment India Award held on 15 December 2014.

CHINA

Ammann at the **Bauma Shanghai**

Bauma China, the international trade fair for construction machinery, building material machines, construction vehicles and construction equipment, took place in Shanghai from 25–28 November 2014. Ammann was once again represented among the 3,000 exhibitors from 40 countries, as usual with an impressive exhibition stand. On an area of 500 m², Ammann presented its new burner technology, the globally tried-and-tested as1 control system and innovative recycling solutions, all of which follow Ammann's trade show motto of "sustainable road construction". Customer Services made use of interactive presentations to introduce the international Ammann Training Centre. Having set up training centres in Switzerland and Australia, Ammann will open its third training centre in China in 2015. An impressive, 30-metre-tall mixing tower belonging to a UniBatch 320 asphalt mixing plant proved to be a major attraction as it afforded visitors a perfect panoramic view of the entire exhibition grounds.



Ammann

Productivity Partnership for a Lifetime: impressions from the Ammann world


› This year's annual ITF (International Technical Fair) took place in Plovdiv, Bulgaria, from 29 September to 4 October 2014. The fair can look back on more than 120 years of history and is the largest mechanical engineering exhibition in Bulgaria.



› With an impressive exhibition stand showcasing all the flair of the Alps, Ammann stood out at the GaLaBau in Nuremberg, Germany, the largest trade show for garden construction and landscaping held from 17–20 September 2014.

› Send in your photo

Send your best Ammann photos together with a caption to the following email address: magazin@ammann-group.com

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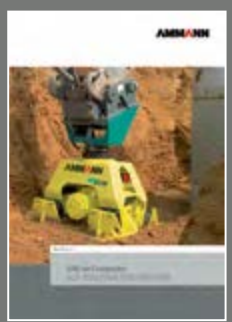
2015

18–21.03.2015	**InterStroyExpo, Saint Petersburg/Russia**
23–25.03.2015	**Expo Mongolia, UlanBator/Mongolia**
20–25.04.2015	**Intermat, Paris/France**
21–24.04.2015	**Roads of Siberia, Irkutsk/Russia**
21–24.04.2015	**VolgaStroyExpo; Kazan/Russia**
22–24.04.2015	**CEMMS Ural, Ekaterinburg/Russia**
04–07.05.2015	**Project Qatar, Doha/Qatar**
06–10.05.2015	**Komatek, Ankara/Turkey**
13–15.05.2015	**Targi, Kielce/Poland**
27–01.06.2015	**FIA, Algiers/Algeria**
02–06.06.2015	**CTT, Moscow/Russia**
09–13.06.2015	**M&T Expo, Sao Paulo/Brazil**

New publications:

› ASPHALT
– ADDITIONAL PRODUCTS FOR ASPHALT PRODUCTION (DE, EN, FR, RU, PO)

› MACHINES
– SINGLE-DRUM ROLLERS ASC 7–25 T (EN, DE, FR)
ASC 7–17 T TIER 4I (EN, DE, FR)

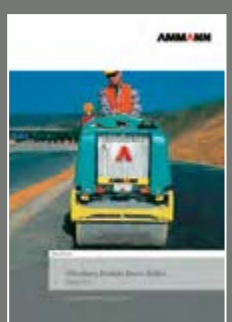


› MACHINES
– ADD-ON COMPACTOR PRODUCT RANGE (EN, DE, FR)

› MACHINES
– RAMMER PRODUCT RANGE (EN, DE, FR)

› CONCRETE
– CONCRETE MIXING PLANTS FOR CONCRETE COMPONENTS AND PRECAST PARTS INDUSTRY (DE, EN, FR, RU, TK)

› MACHINES
– HIGH-PERFORMANCE VIBRATORY PLATES (EN, DE, FR)



› MACHINES
– ARW 65 WALK-BEHIND ROLLER (EN, DE, FR)

› MACHINES
– ARX 1.5–4.5 T TANDEM ROLLER (EN, DE, FR)

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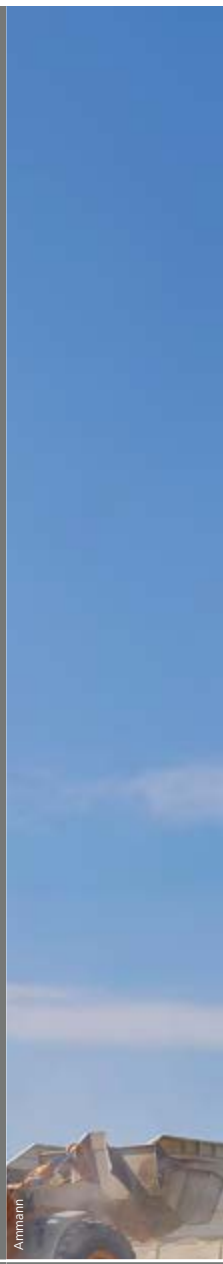

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