POWERSFUL DYNAMICS IN THE ARABIAN MARKET

Full range available from the Ammann site in Dubai

PIioneer in asphalt recycling
Chinese Xiehe recognises the potential

AMMANN GAINS FOOTHOLD IN CENTRAL AMERICA
Single drum rollers on the streets of Mexico

10,000 KILOMETRES ACROSS RUSSIA
Extreme working conditions
ON SITE: Ammann's first RA plants in China bring profitable road building orders for Changzhou Xiehe.

PIioneer in Asphalt Recycling

ON SITE: Ammann's first RA plants in China bring profitable road building orders for Changzhou Xiehe.

A RUSSIAN LEGEND IS FACING COMPETITION

WORLDWIDE: The Trans-Siberian Highway will soon be finished. The famous railway route is losing its monopoly.

AMMANN AND YANMAR REDESIGN COOPERATION

FOCUS: Strategic adjustments enable both partners to pursue independent further development with large market potential.

POWERFUL DYNAMICS IN THE ARABIAN MARKET

ON SITE: Competent service for mixing plants and machines on the Arabian peninsula.

ROADS OF THE WORLD: The longest route

ACE: Now with standardised measuring system

LAYING ASPHALT IN WINTER:

Courageous Carsten Lundhøj

GERMANY: Hands-on teaching

FRANCE: Flexible all-rounder ContiMix

MEXICO: Successful market entry

NEW ZEALAND: First Ammann plant

COMPETITION: Ten lucky winners

PHOTO ARCHIVE: Sweet memories

IMPRESSIONS FROM THE AMMANN WORLD

TRADE SHOW PREVIEW: Schedule 2010/2011
The year 2010 is slowly running out of steam. Only a few months remain for us to successfully complete what we have started and lay the foundations for new achievements. Many government budgets are also running out of steam. Heavy borrowing and drastic spending cuts are putting a tangible stranglehold on development. Much-needed investments in the infrastructure are being postponed. The unstable exchange rate is indicative of dwindling confidence and brings further challenges for us to face. Uncertainty is still too predominant and a sustainable boom is therefore still far from view.

But even if conditions remain as demanding as they are, we will continue to place our unshakeable faith in the future of road construction. The following facts provide us with the strength to uphold our convictions:

**Ammann's foundations encompass the globe**

Our products provide the best quality from the ice-cold areas of Scandinavia to the hot deserts of the Middle East. They are cared for comprehensively from East to West by our dealers and subsidiaries.

**Ammann is pushing ahead with promising innovations**

Our developers are optimising asphalt mixing and compaction technology as well as the new pavers and our competent customer service.

**Ammann is fully focused on road construction equipment**

This summer we redesigned our partnership with Yanmar.

**Ammann has its costs under control**

We keep our organisation lean. Every penny we spend is aimed at improving our service to you, the customer.

**Ammann invests in its employees**

Our long-standing experts stay abreast of developments in their fields. They are supported by our own highly motivated graduates.

**Ammann is expanding its sales network**

We have further strengthened our sales competence to be closer to you and can adapt our products and services at any time to accommodate market demands.

"WE ARE INVESTING IN THE DEVELOPMENT OF OUR PRODUCTS AND CONTINUE TO EXPAND OUR SALES NETWORK."

Read the articles in the new Ammann Magazine and see for yourself. I hope you enjoy perusing the magazine and look forward to our next encounter.

We wish you strength and tenacity. Ammann has both!

Best regards,

Johann N. Schneider-Ammann

DEAR CUSTOMERS,

The year 2010 is slowly running out of steam. Only a few months remain for us to successfully complete what we have started and lay the foundations for new achievements. Many government budgets are also running out of steam. Heavy borrowing and drastic spending cuts are putting a tangible stranglehold on development. Much-needed investments in the infrastructure are being postponed. The unstable exchange rate is indicative of dwindling confidence and brings further challenges for us to face. Uncertainty is still too predominant and a sustainable boom is therefore still far from view.

But even if conditions remain as demanding as they are, we will continue to place our unshakeable faith in the future of road construction. The following facts provide us with the strength to uphold our convictions:

**Ammann’s foundations encompass the globe**

Our products provide the best quality from the ice-cold areas of Scandinavia to the hot deserts of the Middle East. They are cared for comprehensively from East to West by our dealers and subsidiaries.

**Ammann is pushing ahead with promising innovations**

Our developers are optimising asphalt mixing and compaction technology as well as the new pavers and our competent customer service.

**Ammann is fully focused on road construction equipment**

This summer we redesigned our partnership with Yanmar.

**Ammann has its costs under control**

We keep our organisation lean. Every penny we spend is aimed at improving our service to you, the customer.

**Ammann invests in its employees**

Our long-standing experts stay abreast of developments in their fields. They are supported by our own highly motivated graduates.

**Ammann is expanding its sales network**

We have further strengthened our sales competence to be closer to you and can adapt our products and services at any time to accommodate market demands.

"WE ARE INVESTING IN THE DEVELOPMENT OF OUR PRODUCTS AND CONTINUE TO EXPAND OUR SALES NETWORK."

Read the articles in the new Ammann Magazine and see for yourself. I hope you enjoy perusing the magazine and look forward to our next encounter.

We wish you strength and tenacity. Ammann has both!

Best regards,

Johann N. Schneider-Ammann
A JUSTBLACK WORKING CONTINUOUSLY ON THE AL AIN–DUBAI HIGHWAY

M. A. Al-Kharafi & Sons is domiciled in Abu Dhabi and has recently started a project valued at AED 700 million to refurbish the road between Al Ain in the Emirate of Abu Dhabi all the way to the border with Dubai. The American company Hill International is responsible for project management, whilst the municipality of Al-Ain is the client. An Ammann JustBlack 240 was selected to produce the asphalt for a 50 km section of the Al Ain–Dubai motorway. The plant has been running at full capacity for more than 18 months to cope with the demands of the project. The teams from ADMAK and Ammann NME work closely together to ensure the plant continues to operate at peak performance level.
Once a desert oasis, the United Arab Emirates (UAE) are today a trendy metropolis, a commercial and cultural hotspot where the concepts of modernity, luxury and development are constantly redefined. 30 years ago the south coast of the lower Gulf region was a barren, scarcely populated piece of land, yet today it is one of the most vibrant and dynamic nations on Earth. Ammann has a long history of activity in the Gulf region and, for the past four years, has operated a subsidiary, Ammann NME, based in the Dubai Airport Free Zone. The office has a fully equipped service team and is able to provide spare parts to the markets of the Middle East, the Gulf region and North Africa with greater speed and efficiency.
THE COMPOSITION OF THE TEAMS WORKING ON THE ASPHALT MIXING PLANTS REFLECTS THE MULTI-CULTURAL MIX OF THE POPULATION.

According to recent reports, the population of the UAE has meanwhile reached 8 million, of which slightly less than 20% are nationals or Emiratis; 50% stem from South Asia and 23% are non-Emirati Arabs and Persians. Close to 1.75 million Indians live in the UAE. Dubai has a headcount of 1.6 million and is the region’s most densely populated city. Legislation in the UAE is relatively liberal in comparison to other Arab states. The country has a civil code, although the Sharia or Islamic law still prevail with regard to certain aspects.

The heartland consists mainly of desert with a few oases, with the scraggy Hajar mountain range running through the country. The climate in the UAE is generally very hot and dry. The hottest months are July and August when average peak temperatures in the coastal plain exceed 50°C during the day.

Rice, fish and meat were always the traditional food of the Emirates. The people of the United Arab Emirates have adopted a large part of their nutrition from neighbouring countries, namely from Iran, Saudi Arabia and Oman. Fish and seafood have for centuries been the mainstay of the Emirate diet. Coffee and tea are popular beverages, to which cardamom, saffron or mint are often added to achieve a more distinct taste.

THE WAY AHEAD

The economy of the UAE will probably continue to centre around the giant oil and gas reserves that are responsible for around one-third of the country’s GDP, two-thirds of all resources generated from the discovery of oil in the region enabled modernisation on a huge scale. Towns were transformed from clay-hut societies to capitals of commerce. Urbanisation went hand in hand with a unique level of growth.

Today, Dubai and Abu Dhabi count among the most modern and progressive cities in the world. They can be justly proud of some of the most magnificent architectural masterpieces of all time. After all, Dubai is home to the Burj Khalifa, the world’s tallest building standing at 828 metres, whilst Abu Dhabi boasts the largest mosque in the UAE, the Sheikh Zayed Mosque. Not to mention the shopping paradises both cities have to offer.

Multi-cultural population and nutrition

According to recent reports, the population of the UAE has meanwhile reached 8 million, of which slightly less than 20% are nationals or Emiratis; 50% stem from South Asia and 23% are non-Emirati Arabs and Persians. Close to 1.75 million Indians live in the UAE. Dubai has a headcount of 1.6 million and is the region’s most densely populated city. Legislation in the UAE is relatively liberal in comparison to other Arab states. The country has a civil code, although the Sharia or Islamic law still prevail with regard to certain aspects.

The heartland consists mainly of desert with a few oases, with the scraggy Hajar mountain range running through the country. The climate in the UAE is generally very hot and dry. The hottest months are July and August when average peak temperatures in the coastal plain exceed 50°C during the day.

Rice, fish and meat were always the traditional food of the Emirates. The people of the United Arab Emirates have adopted a large part of their nutrition from neighbouring countries, namely from Iran, Saudi Arabia and Oman. Fish and seafood have for centuries been the mainstay of the Emirate diet. Coffee and tea are popular beverages, to which cardamom, saffron or mint are often added to achieve a more distinct taste.

The way ahead

The economy of the UAE will probably continue to centre around the giant oil and gas reserves that are responsible for around one-third of the country’s GDP, two-thirds of all
LARGE-SCALE INVESTMENTS IN THE ROAD INFRASTRUCTURE ARE PIVOTAL SUCCESS FACTORS FOR THE RAPID ECONOMIC DEVELOPMENT OF THE EMIRATES.

Traditional tea-drinking culture blends with vibrant life in Dubai.
exports and a large portion of public revenue. At the same time some Emirates, namely Abu Dhabi and Dubai, are undertaking significant endeavours to provide wide-spread support for their respective economies with regard to securing long-term development and broad-based employment.

Abu Dhabi has invested heavily in aviation, defence and information technology (microprocessors) as well as in petro-chemical and clean-tech industries. The latter are best represented by the billion-dollar initiative to construct “Masdar Future City”, a CO₂-neutral eco-city outside of Abu Dhabi. Dubai has diversified by investing in tourism, information and communication technology, export and the financial sector. The country wants to utilise its geographical location at the head of the Gulf to revitalise and expand its historic reputation as a transshipment port.

Consolidated Contractors Company CCC was awarded the contract to provide the infrastructure buildings for a new oil producing area with 52 wells in the Abu Dhabi hinterland. The assignment included constructing pipelines for water and gas, other civil engineering works and the installation of storage tanks. Work at the oil field will begin in October 2010 and will be completed in August 2012. The JustWhite, however, was shipped from Langenthal to Jebel Ali in May 2010. The JustWhite will be assembled and tested in Jebel Ali and then transported as sub-assemblies to its destination at the new oil producing field 150 km away. CCC attached major importance to the use of high-quality components when selecting the concrete mixing plant. An excellent after-sales service was of equal importance: CCC can count on the support of experienced personnel in Langenthal available via telephone or Internet and, if the need arises, Ammann’s engineers in Dubai are not too far away in comparison to the vastness of the Arabian desert.
China's transport infrastructure has seen some rapid development in recent years, as is to be expected given the conditions of an emerging market. Take the motorways, for instance: China constructed a motorway network of 24,700 kilometres during its tenth "Five Year Plan". Another 4,719 kilometres were added in 2009. It goes without saying that the construction market for bridges and roads is booming in view of these developments. The role played by reclaimed asphalt is gaining ever greater importance.

Asphalt producer Changzhou Xiehe Road & Bridge Engineering Co., Ltd. uses RA to massively reduce production costs.

The Changzhou Xiehe Road & Bridge Engineering Co., Ltd. is an outstanding example of a company always on the lookout for new opportunities in a growth-oriented environment. Founded in 2003, Xiehe is a qualified Grade Two contractor for communal construction projects as well as a professional manufacturer of asphalt.

The general opinion in the rapidly expanding Xiehe company is that a company must continuously strive to achieve greater margins and increase its competitive ability. Cai Jinrong, Director General of Xiehe, first recognised the value of reclaimed asphalt in 2006. It soon became clear to him that sophisticated recycling technology would lead to enormous savings in the cost of production. After internal discussions and practical trials, Xiehe decided in May 2009 to purchase a Uniglobe 320 asphalt mix-
Xiehe acquired its first processing plant for reclaimed asphalt in 2007. Having achieved a production capacity of 250,000 tonnes, Xiehe was able to increase its profits and expand its competitive advantage thanks to reclaimed asphalt mixing plants. However, the following year brought with it an increasing number of projects that placed higher demands on both production capacity and quality. The stability of the existing third-party plant was severely tested and Xiehe was forced to consider the acquisition of more robust and efficient equipment.

"A few steps ahead"
The company approached Ammann in 2008 and, in March 2009, purchased its first Ammann asphalt mixing plant, a Uniglobe 320, which was soon followed by a second Ammann plant for processing reclaimed asphalt. According to Cai Jinrong, production capacity at Xiehe is set to reach the 400,000 tonne mark in 2010 with the use of reclaimed asphalt boosting the company’s profits considerably. The company is currently planning an extension to the reclaimed asphalt plant, whereby Cai Jinrong naturally wants to fall back on top products from the Ammann range: “At the moment we are a step ahead of our competitors in the market. However, the market is developing at considerable speed and the competition is getting tougher all the time. We will soon be overtaken by others if we stop striving to move forwards or if we are unable to continuously improve our development status. This is why I always need to be a few steps ahead of the others.” The Ammann plant is capable of using a reclaimed asphalt rate of 50 per cent to

A Uniglobe 320 in Caoqiao near Shanghai produces quality asphalt in large quantities for China’s ambitious road construction projects.
produce asphalt with the same quality as with brand new raw materials. The plant is further characterised by a high degree of stability. “We have tested other brands, but Ammann comes first with regard to quality and stability. The high investment has certainly proved to be worthwhile in the long run”, says Cai Jinrong in praise. The asphalt production process is characterised by two key factors: temperature regulation and quality control. The Ammann plant utilises a hot-air heating system with a large combustion chamber. This guarantees the high quality of the end product. The plant is also equipped with an outstanding automatic control system that is simply incomparable with Chinese products.

Xiehe has become more competitive with regard to both quality and price since installing the Ammann asphalt mixing plant. Cai Jinrong explains that he can now offer a one-off discount of 10 per cent for projects with a value of RMB 5 million. Xiehe was thus able to help his customer to realise a profit of RMB 500,000 – thanks exclusively to progressive recycling technology from Ammann. No wonder business is booming for Xiehe. At a time when other companies are searching for new projects, Xiehe’s order books are so full that the company is now forced to turn down new requests.

Reclaimed asphalt is becoming a hot topic
The majority of old or used asphalt in China is simply thrown away. This has led to an overuse of fresh aggregate and a waste of excavated asphalt. Many of China’s motorways will soon enter the maintenance and refurbishment phase. The quantities of waste asphalt accumulated during this work will soon reveal the problems at hand – these being the effective utilisation of resources, the storage of excavated asphalt and environmental protection in general. Recycling old asphalt is therefore more than just a technical issue. Some Chinese companies began using reclaimed material back in 1995. Significant progress, however, has been lacking for years. There are two main reasons for this: firstly, the technology for utilising reclaimed material is still in the development stage. The world’s leading recycling technologies need more backing in the Chinese market. The second reason lies in the traditional attitude: many customers simply do not want to accept that their finished asphalt product was processed using waste asphalt. The prevailing general opinion is that recycled material simply cannot
compete with new material. It is only in recent times that a growing number of people have recognised the economic and social benefits. Accordingly, reclaimed asphalt has become a hot topic in the market place.

The utilisation of recycled material in China is currently in a very early phase, i.e. the vast majority of materials used for paving are still brand new. If it were possible to recycle these materials, it would save huge quantities of natural resources. It would also generate huge profits. Customers and contractors in the construction industry are slowly beginning to understand the correlation.

Let’s take Xiehe as an example. Despite encountering various difficulties the company insists on pursuing the path of utilising reclaimed material. It is, of course, self-explanatory that the high quality of the Ammann plant makes utilising reclaimed material at Xiehe’s sites even more favourable. Or, as Cai Jinrong says: “We have every confidence in the asphalt products we produce with the Ammann plant, even when adding 50 per cent reclaimed material to the mix.” It plays a major role in Xiehe’s endeavours to further strengthen its reputation among customers as a credible and reliable company.

"WE HAVE TESTED OTHER BRANDS, BUT AMMANN COMES FIRST WITH REGARD TO QUALITY AND STABILITY."
Cai Jinrong, Xiehe Director General
Together into a better future

The Caoqiao site in Changzhou will in future specialise in reclaimed material. During a tour of the plant Cai Jinrong points to a large open area and says: “The expansion of our plant is still pending approval, but this is where we will have a resource recycling plant in the future. We will grind down reclaimed materials and store the components in separate warehouses. This method will enable us to use recycling technology more effectively and achieve better results with our reclaimed asphalt.” Xiehe is very ambitious when it comes to reclaimed asphalt. Says Cai Jinrong: “We hope to achieve a more favourable environment for the asphalt industry through cooperating with companies like Ammann, and will perhaps be able to contribute towards cultivating related processes.” Xiehe has already undertaken first steps in this direction. The company is currently collaborating with Southeast University to develop an asphalt certification process that will contribute towards the further development of related technologies and products, strengthen the company’s reputation and, last but not least, boost its social acknowledgement.

"WE HAVE COMPLETE CONFIDENCE IN THE ASPHALT PRODUCTS PRODUCED ON THE AMMANN PLANT, INCLUDING MIXES CONTAINING 50% RECYCLED MATERIAL."

Cai Jinrong, Director General of Xiehe, can look back on 30 years of experience with asphalt mixing plants and road construction. He held various positions at Changzhou Municipal Engineering Co., Ltd., including head of the asphalt mixing plant, laboratory head and manager of the road surface department.

The quality of recycled asphalt is just as good as new asphalt paving.
Amdurit® is a wear protection made by Ammann with durability many times more than wear-resistant steel.

Our experience shows that the operation costs are substantially reduced with Amdurit®. In addition to this, the expensive installation and uninstalled costs are reduced due to the longer lifespan.

Due to the various material strengths and qualities as well as the possible manufacture of the originally applied parts, the application possibilities for your asphalt or concrete mixing plant or your gravel plant are practically unlimited.

The numerous ways of mounting, like welding, clamping and bolting, allow you to easily replace the original part with the Amdurit® wear protection.

See for yourself—it is worth it!
AGREEMENT REACHED ON REDESIGNED COOPERATION

Ammann and Yanmar can look back on a successful collaboration lasting more than two decades. The two joint-venture partners will now focus on their respective core activities to reflect the market developments of recent years; however, they will continue to remain affiliates in certain markets after the official separation. Ammann, global market leader in asphalt mixing plants and road construction machinery, will concentrate on its global activities in road building. Yanmar, a globally active developer and manufacturer of diesel engines, agricultural machinery and construction equipment as well as energy systems, will strengthen its activities and become the sole manufacturer of mini-excavators in Saint-Dizier (France).

The Ammann-Yanmar joint venture was established in 1989. The two sides were already on familiar terms from a dealer relationship dating back to 1979 in which Ammann acted as Swiss, French and German distributor for the Japanese mini-excavators. Joint production in Europe presented Ammann with a key to bringing on board first-class dealers for its own range of compaction machinery for the burgeoning markets in Europe.*

The existing production plant in Saint-Dizier (Champagne/France) underwent three phases of refurbishment and expansion (1992, 2001 and 2009). According to Johann Niklaus Schneider-Ammann, President and Delegate of the Ammann Group, the production plant is in an outstanding starting position: “The technical capacity available today is sufficient to meet all customers’ needs in the upcoming and resurgent markets of Europe.”

The unusually successful 21-year cooperation between Ammann and the Japanese engine and machine manufacturer was founded on the companies’ ability to complement one another: Yanmar was from the outset responsible for the engineering side, while Ammann ran management and marketing in Europe.

Continued pursuit of independent market developments

“When Ammann and Yanmar go their separate ways it will be for logical reasons only”, says Schneider-Ammann. Two important acquisitions made in recent times strengthened Ammann’s intention of concentrating exclusively on road-building equipment: in 2005 Ammann acquired Stavostroj, a very capable and renowned manufacturer of compaction machines in the Czech Republic. Ammann has been standing on its own two legs in the compaction segment ever since. In addition, Ammann acquired an Italian manufacturer of road pavers in 2009.

Yanmar’s mini-excavator range has developed increasingly in the direction of heavy excavators over recent years. The Saint-Dizier plant can now put out a complete, ultramodern product range from 0.5 to 10 tonnes for the European market.

Both product lines have asserted themselves on the market independently of each other. Furthermore, sales markets have shifted noticeably towards rental markets in recent years. That is an activity which Ammann/Avesco pursues in Switzerland only through its Cat Rent operation.

Promising potential for expansion for both partners

For Ammann, this strategy opens an opportunity to market the asphalt processing, paver and compaction product lines within
Customers will continue to be served with the usual level of quality

Ammann will remain side by side with Yanmar in the important markets of France, England and Russia. We will continue to provide sales and customer service for the entire range of mini-excavators from Yanmar through Ammann’s proprietary sales organisation. Yanmar Construction Equipment Europe in Saint-Dizier will adopt responsibility for advising and assisting dealers in all other markets.

Ammann’s strategic realignment has also solved a certain conflict of interest with Caterpillar, owned by the family-run business Avesco, in the Swiss market. When the joint venture with Yanmar was founded in 1989 the Caterpillar range did not include mini-excavators. The North American manufacturer of construction machinery was in complete agreement with the model at that time. It did not change its product strategy until the 1990s. Redesigning its cooperation with Yanmar has enabled Ammann to increase its productive efficiency as a provider to global road construction. The proprietary development, manufacture and distribution of equipment, machines and plants for mineral processing, asphalt production, installation and compaction will in future be the central and primary activities the family-owned Swiss company will pursue through its presence around the globe.
ROADS OF THE WORLD: PART 1
THE LONGEST ROUTE IN THE WORLD

The former supercontinent split around 180 million years ago, creating a mountain range on the pacific side of the American double-continent that stretches nearly from pole to pole and consists of the Andes, Cordilleras, Sierras and Rocky Mountains. Roads came into being when man inhabited this stretch of coastline. In 1925, a decision was made in Buenos Aires to build a road: the “Carretera Panamericana” or “Pan-American Highway”. Work on the trans-continental road network has continued ever since. The last stretch needed to complete the road measures 90 kilometres in length and is located in the Darien jungle between Panama and Columbia. The “Panamericana” stretches from Alaska to Tierra del Fuego and is the longest road in the world. The 30,000 kilometres of highway cross 17 nations as well as four climate zones, six time zones and virtually every vegetation zone. The road is far from having a standardised signage. Parts of the route can only be used during the dry season, whilst others are hazardous at any time of the year.

The blacktop cuts its path through a deeply contradictory continent of blue glaciers and white deserts, dense jungle and high mountain passes, wild animals and wistful trickers, bustling mega-cities and silent wilderness, rough summits and gentle dream beaches, sparkling wealth and screaming poverty, paradisiacal natural reserves and ecological disaster areas, hidden Inca treasures and cheap fast-food chains, religious festivals and seedy night-life, millionaires with body-guards and begging Indio children, masked guerrillas and industrious coca farmers, historic cities and collapsing new buildings, proud aboriginals and broken immigrant workers.

Of course, the route also passes through large cities such as Cacau in Columbia.
A MOST CHIVALROUS ROAD: ODOS IPPODON IN RHODES

Odos Ippodon, the Street of the Knights, is located in the city of Rhodes, whose old town is a UNESCO World Heritage Site. It is the only completely preserved residential street in Europe dating back to the middle ages. In the times of the Knights of St. John of Jerusalem (1309–1522), the place was full of horsemen and young knights with long hair tucked away under red caps and swathed in brilliant-red cloaks bearing the white cross of the Knights of St. John. Today, it is the tourists who walk along the Chochlaki paving so typical of the island. The eight “tongues”, or national corps of The Knights of St. John, built their unadorned hostels in this street in the 14th century, where they shared meals and assemblies. The straight street may appear disappointing at first glance. But careful observers can discover many an interesting detail on the facades next to the national corps’s coats of arms situated above the portals. The buildings are still in use today: by archaeological services and offices of the Greek Ministry of Culture. The two most beautiful buildings belong to the Italian and French consulates.

STRICTLY SPEAKING

One could indeed dispute the Panamericana’s claim to the title of “longest road in the world”. After all, not one road in the USA belongs officially to the Panamericana. However, its name alone is enough to pull in the tourists. There are also a number of parallel and alternative routes along its course, which mean the longest road in the world is, strictly speaking, a road network.

It should therefore be mentioned that the 24,000 kilometres of Australia’s National Highway 1 represent the longest road of any single nation. Russia’s Trans-Siberian Highway that connects Vladivostok in the east with Moscow in the west measures 10,000 km in length. Highway 50 connects some of America’s most breath-taking landscapes and cityscapes along a stretch measuring 4,945 km. In Nevada it is considered as the loneliest road in America. Europe’s longest road is the E6 in Norway. It starts in Kirkenes and ends 2,502 kilometres away in Oslo.

The “Carretera Panamericana” runs from North to South America and connects Alaska with Tierra del Fuego.
NEW STANDARDISED MEASURING SYSTEM FOR COMPACTION MACHINES

Technological developments relating to earth-moving and asphalt compaction machinery continue at a steady pace. Intelligent measuring systems enable a greater installation output in response to ever tighter construction schedules. Their modern test techniques fulfil today’s enhanced requirements for optimised machine utilisation and permanent quality assurance.

Conventional test methods are carried out where indicated once compaction work is completed. Regular standstill times significantly inhibit the progress of construction. Deficiencies discovered in this manner lead to a necessity for rework and other undesirable delays.

The increasing necessity to verify compaction across the entire surface area at any time during the process is therefore fully understandable. Fulfilling this demand calls for compaction machinery to be equipped with a measuring system. Ammann has taken up the challenge and has developed a standardised platform for measuring substrate consistency ($K_s$ in MN/m).

Greater flexibility and independence
Not every compaction application calls for a comprehensive measurement and control system on every machine. Thanks to an innovative extension to the measurement algorithm it is now possible to intentionally forego certain process parameters. Virtually any compaction machine from the Ammann range (from lightweight vibratory plates to heavy rollers) with standard machine parameters can be equipped with a comparable measuring system thanks to standardised electronic components. The new standardised platform is available in various expansion stages; it uses the well-established ACE (Ammann Compaction Expert) measurement and control system to generate a reliable measurement value known as $K_s$ to indicate substrate consistency in MN/m and thus provide a comparable statement on the progress of work.

The benefit to the user lies in an increase in flexibility and independence which together result in greater productive output in modern road construction.

The associated simplification of service and maintenance achieved through a standardised service tool offers significant benefits to dealers and customers alike. The new platform concept is also at the heart of significant progress in customer service and in the output achieved by customers.

This development is an impressive and consistent confirmation of Ammann’s technological leadership and documents the company’s innovative approach towards adapting quickly to changing customer requirements.
ACE AS A POLYVALENT TOOL
Dynamic compaction measurement methods make it possible to use the compaction machine to consolidate the substrate whilst measuring important geomechanical properties during the installation process or working on an existing sub-surface. The method enables deductions to be drawn directly from the measurement values established during the compaction process. The system is suitable for surveying construction sites, locating sub-surface defects and determining maximum compactibility.
ASPHALT PRODUCTION DOES NOT STOP AT SUB-ZERO TEMPERATURES

Road construction sites normally come to a standstill during winter. The froster the weather, the more difficult it is to manufacture and install asphalt. However, Carsten Lundhøj, Plant Manager at Lemminkäinen in the Danish town of Vandel, explains in an interview that, as always, exceptions confirm the rule.

MAGAZINE: WHY WAS IT NECESSARY TO PRODUCE ASPHALT UNDER THESE EXCEPTIONAL CONDITIONS IN MID-WINTER?

Carsten Lundhøj: The motorway to the south of Vejle had been in a poor condition for some time. However, the road construction authority postponed installing a new asphalt surface as the stretch was due to be extended from four to six lanes in 2012. The road would have been refurbished within the scope of the extension. Then, however, came winter with its extreme low temperatures, ice and snow and thoroughly foiled the plan. The road more or less collapsed as severe frost damage made it virtually impossible to drive on the motorway.

What part of the existing asphalt plant in Vandel did you have to modify to mix asphalt in these conditions?

We used insulation mats to protect the cold feed bins from the cold. A large heater beneath the bins ensured that nothing froze solid and the aggregate could flow freely. Additionally, we sprayed each cold feed bin with a special anti-freeze agent prior to production to prevent caking. We insulated the burner’s gas lines and used a heater and additional insulating material to protect the pneumatic system and air-drying system from the cold.

Installing the asphalt was no doubt a challenge, too.

Installing asphalt in frosty conditions is, of course, a tricky business as the mix cools down...
WHO IS LEMMINKÄINEN?
The Finnish group of companies named Lemminkäinen was founded in 1910 and is one of Scandinavia’s largest producers of asphalt. The successful construction company employs around 8,000 people and operates a total of 90 asphalt mixing plants. Last year alone Lemminkäinen manufactured nearly 5 million tonnes of asphalt for the roads of northern and eastern Europe.

WHO IS CARSTEN LUNDHØJ?
Carsten Lundhøj as Plant Manager is responsible for all seven asphalt mixing plants operated by Lemminkäinen in Denmark. The two newest of the seven plants are located in Vandel (Ammann Universal, built in 2007) and in Koge (Ammann Universal, built in 2008).

very quickly. The compaction itself was okay, although the surface is not as even as it should be. However, we can live with that as we only had to install the binder course. A new asphalt surface course was installed on the motorway in the summer.

HOW MUCH AND FOR HOW LONG DID YOU PRODUCE ASPHALT UNDER THESE TOUGH CONDITIONS?
We produced around 17,000 tonnes of asphalt over a two-week period. We started production at 18:00 hours and finished work for the day at four in the morning. The large amount of traffic on the motorway forced us to produce and install the asphalt at night.

DID THE ASPHALT MIXING PLANT MEET YOUR EXPECTATIONS?
We didn’t experience any major problems at all. At first we were doubtful whether the air in the pneumatic system would be dry enough or suffer under the formation of ice crystals. However, the entire plant worked without a hitch – despite these extreme winter conditions – thanks not least to the air dryer installed downstream from the compressor.

"THE ENTIRE PLANT WORKS WITHOUT ANY PROBLEMS AT ALL DESPITE THE EXTREME WEATHER CONDITIONS - AND DESPITE OUR DOUBTS!"
The Trans-Siberian Railway will lose its monopoly as the only connection between Eastern Russia and the rest of the country with completion of the motorway section "M58". But one superlative will give way to another: the Trans-Siberian Highway from Moscow to the Pacific coast measures around 10,000 kilometres. The necessary asphalt was supplied by a plant from Ammann.

Who has never heard or read of the Trans-Siberian Railway? A journey on the "Trans-Sib" is doubtless one of the last great railway adventures. The world’s longest and most famous railway crosses the vast expanse of the Asian continent – and a comparably small part of Europe. The tour de force from the Russian capital of Moscow to the Sea of Japan lasts a full seven days. 89 cities lie along the route. It passes through a total of 396 railway stations and crosses 16 major rivers. After travelling an incredible 9,288 kilometres and crossing seven time zones the train finally pulls in to the seaside city of Vladivostok on the Pacific coast.

The project of the century battles against extreme conditions
The decision to connect Russia’s Pacific region to the road network of the heartland was made under Leonid Brezhnev in 1966; con-

The cold is more than tangible: the "Trans-Sib" pulls into Mogocha station in the Transbaikal region after 6,906 kilometres and in temperatures of –40°C.
The route of the Trans-Siberian Railway (built between 1891 and 1916). The two-track extension was completed after World War Two; continuous electrification was not completed until 2002.

- Baikal-Amur Mainline.
- 10,000 kilometres of road from Moscow to Vladivostok.
- The final section: the M58 between Chita and Khabarovsk.

Construction began in 1978. The economic crisis of the mid 1990s and the extreme climatic and geological conditions inherent to East Siberia made construction all the more difficult.

Section M58 runs from Chita to Khabarovsk, measures around 2,000 kilometres in length and was the greatest challenge. Annual temperature fluctuations of up to 100°C and the construction of 200 bridges in completely undeveloped regions give an indication of just how high demands were. Although officially opened in 2004, the M58 still sported an enormous gap that was in part only navigable via adventurous forest tracks leading across the Taiga. Even years later the road still had little in common with a modern motorway. It was more like a Trans-Siberian dirt track as more than 1,000 kilometres were as yet still waiting for an asphalt surface.

**Assembly of an asphalt mixing plant far from the beaten track**

At kilometre 6,906 the Trans-Sib pulls into the station at Mogocha, a small town in the Transbaikal region with a population of 12,000. With January’s temperatures averaging –30°C and dropping to –62°C under extreme conditions, Mogocha is the coldest place along the Trans-Sib route. The motorway section M58 lies around 70 kilometres to the south. It will devour millions of tonnes of asphalt over the next two years. Asphalt produced by a new JustBlack from Ammann erected in no-man’s land – three hours away from Mogocha by car – in the summer of this year.

Assembly conditions were unusual even for the tough and experienced Ammann engineers and their team of helpers from Ulan Ude, a town situated some 1,200 kilometres away: no running water, no electricity, no mobile phone signal – nothing even remotely reminiscent of civilisation. Despite these adverse conditions the plant started to produce asphalt just four weeks after the first components had arrived. The customer was under significant time pressure as the promise of frost threatened to render construction impossible as of August.

Around seven million people living in Russia’s far east will have to wait until 2011 – more than 100 years after the inauguration of the Trans-Siberian Railway – for the road to be completed. They will then be able to travel across their country on asphalt.
KNOW-HOW TRANSFER BETWEEN AMMANN AND A VOCATIONAL SCHOOL

Only two schools in Germany provide training courses for the trade of the "Mineral processing engineer in the non-metallic minerals industry": one in Wiesau in Bavaria and another in the Thuringian town of Erfurt. The fruitful cooperation between a state vocational school and Ammann as a construction equipment provider is all thanks to a very committed teacher.

"Now then, how could we improve the training programme?" Peter Schaller asked his third-year students during a morning break at Wiesau vocational school. "We would be interested in learning more about the design of asphalt mixing plants and their computer-based control systems", said two students spontaneously.

Peter Schaller acknowledged the input without further comment. Students and teacher went their separate ways as the latter had other classes to teach that day. However, his students’ request continued to play on his mind: "How can I fulfil my students’ request? Where can I get competent, up-to-date information?", he asked himself.

Inspirational, contemporary learning

Peter Schaller, who in addition to his tasks as a teacher is also responsible for external contacts at Wiesau, began to search the Internet and soon came across Ammann. "I explained briefly what I had in mind and was soon speaking to a process engineer. He was immediately very open for my proposal. We tried to determine there and then

Preparing bitumen samples for needle penetration: teacher Peter Schaller with students in the building materials laboratory at Wiesau vocational school.

Budding engineers with unusually high practical orientation: the site managers and mixing engineers of tomorrow from the Bavarian town of Wiesau are seen here with Ammann specialists Andreas Koller (Ammann concrete mixing plants), Mathias Hebner (Ammann control systems), teacher Peter Schaller and Nuno Lélé (Ammann asphalt mixing plants).
WHAT DOES A MINERAL PROCESSING ENGINEER IN THE NON-METALLIC MINERALS INDUSTRY IN GERMANY LEARN?

The one-year training course consists of:

- Basic material processing skills
- Tool maintenance
- Methods of exploiting, extracting and conveying raw materials
- Processing raw materials into end products

The next two years are then spent specialising in a chosen area of expertise. The tasks of a process engineer for asphalt technology include:

- Work planning and systematic trouble-shooting
- Servicing machines and plant equipment
- Sampling and implementing quality assurance measures
- Monitoring, controlling and regulating process workflow
- Loading, weighing and dispatch

on the telephone how an informative and realistic day for the students might look”, he says. The main subject would be the design and functionality of asphalt mixing plants, but some time would also be spent on looking at control systems and, as a supplement, the functionality of concrete mixing plants. A date was soon fixed and the three-strong Ammann team began preparing a less than ordinary day at work.

The students were very enthusiastic about this type of teaching as the Ammann specialists were able to answer any question in detail straight off the cuff. “Teaching in our fast-moving times could not be any closer to reality or more up-to-date”, says a happy Peter Schaller. “We will continue the project next year and perhaps even expand it if possible.”

France

EUROVIA PRODUCES ASPHALT WITH A CONTIMIX II

The French asphalt market has a strong preference for continuous mixing technology. The plant operator in France appreciates high production output in combination with low investment and maintenance costs. Small wonder, then, that one large producer of continuous asphalt mixing plants hails from France. Ammann was able to win virtually every project for continuous mixing plants in France over the past two years despite the producer’s heavy involvement in his own domestic market.

Flexible all-rounder
Ammann’s continuous mixing plant concept is based on the tried and tested Amix twin-shaft paddle mixer familiar from discontinuous Ammann mixing plants. By falling back on a wealth of experience and taking operator needs and wants into account – especially those of construction company Eurovia – Ammann was able to combine the best of the continuous and discontinuous mixing worlds in one plant: the ContiMix. The ContiMix mixes everything in top quality. Examples include rolled asphalt, stone mastic asphalt, open-pore drainage layers, coloured asphalt and up to 100% reclaimed asphalt, to name but a few. The plant can also produce cold mix asphalt in conjunction with emulsions or foamed bitumen. The plant was designed with a view to the future so that the production of low-temperature asphalt is also possible. This innovative plant concept is based on more than 100 years of experience in mixing plant construction, intensive dialogue with plant users and tried and tested core components from Ammann. The ContiMix II has an extremely compact design, making it easy to encase in housing which, together with extraction for individual plant sections, successfully prevents any kind of emission. But the best is yet to come: the ContiMix works without any losses during stopping and starting and can even produce individual batches. What other continuous mixer can do that?
AMMANN GAINS A FOOTHOLD IN CENTRAL AMERICA

As the exclusive dealer for Mexico the company Distribuidora Megamak S.A. de C.V. became a member of the global Ammann dealer network some months ago. The network currently consists of more than 120 dealers in no fewer than 90 countries.

Distribuidora Megamak S.A. de C.V. is responsible for construction machinery within the Bepensa Group. The family business was founded more than 60 years ago and is now in the fourth generation. In addition to its head office in Merida on the Yucatán peninsula, Megamak has a further 14 subsidiaries with over 400 employees across the entire country. In addition to various types of construction machinery the company also markets diesel engines, power generating plants and industrial plants. Today, the company under the management of Bernardo Vázquez Lara is one of the country’s most successful suppliers of construction machinery. Ammann has gained a foothold in Mexico thanks to its cooperation with Distribuidora Megamak S.A. de C.V. Business has made a promising start despite the difficult current economic situation. Heavy-weight compaction machines were the first to enter the Mexican market for construction machinery. To date, more than a dozen Ammann single drum rollers are compacting road construction sites in Mexico. The next goal is to launch machines from the light-weight and middle-weight categories onto the roads of Mexico. Potential is there: with a surface area of approximately 2 million square kilometres (or one half of the EU) Mexico currently has a road network of some 375,000 km, of which only around 30% are paved with asphalt. The first trade show appearance of Ammann rollers in Mexico was also a huge success: seen for the first time ever last May at the Expo Construcción in Mérida (Yucatán), the Ammann colours generated a lot of interest among trade show visitors. Bernardo Vázquez: “I am pleased to have entered into a business relationship with Ammann. I am convinced the many technical innovations and very high quality of the machines will result in a resounding success in Mexico for our companies.”
No fewer than 405 readers of Ammann MAGAZINE took part in the competition published in the previous edition. Responses were received from 21 different countries: from Germany, Bulgaria and Russia to the Ukraine, Turkmenistan and Pakistan to China, Canada and South Africa. The six questions on Switzerland, the birthplace and home of our family business, were indeed very demanding. 111 answers coupons contained one or more incorrect or incomplete answers. Main winner Markus Schuppert was totally taken by surprise but nonetheless very happy with his win. “I take part in competitions on a regular basis but have never won anything”, says the man responsible for purchasing activities in Bavaria and central Germany at the Basalt-Aktiengesellschaft (Mitterteich, Germany). “What’s more is that I have never been to Switzerland and my girlfriend and I love to ski – it couldn’t be any better!” Congratulations!

**THE WINNERS**

1. prize: 3 nights for two persons at Hotel Alpenland in Lauenen/Gstaad (Switzerland) valued at € 1,400: Markus Schuppert, Basalt AG, Mitterteich (Germany).

2.–5. prize: Voucher valued at € 100 to purchase Ammann articles from the Ammann shop: Ivan Pospelov, Dmitrov Chamber of Commerce, Dmitrov (Russia); Thomas Angehrn, Eberhard Bau AG, Weiningen (Switzerland); Elmar Holzinger, Emscher-Mischwerke GmbH, Recklinghausen (Germany); Danail Nikolov, Bulgarian Transport Press, Sofia (Bulgaria).

6.–10. prize: Victorinox quality Swiss penknife: Jean-Daniel Solheid, Solheid Construction SA, Malmedy (Belgium); Peter Schmidt, Stormannwerke, Frielendorf (Germany); Andreas Vogler, Xaver Schmider GmbH, Marktoberdorf (Germany); Hans Herzig, Kieswerk Wynau, Wynau (Switzerland); Margrit Stauffer, Implenia Bau AG, Bern (Switzerland).
It was only by coincidence, so people say, that Rodolphe Lindt of Berne stumbled across the conche process in 1879 which gave Swiss chocolate a hitherto unknown delicate quality resulting in a sales explosion at the turn of the 20th century. Ammann is involved in this sweet story of success in more ways than one.

The company supplied not only the mills required for processing cocoa and sugar but also the all-important conches. Their rollers refine the chocolate mass over a period of three days until it reaches the desired consistency. Lindt & Sprüngli still use an Ammann conche to this day for quality control purposes. The “Conche No. 4 with four basins” shown here dates back to 1915, a time when the production of machines for the domestic market and in particular for the food industry was driven forwards by the effects of the First World War. At the time, Ammann’s large customers included sugar factories and a company named Wander who used a universal mill from Ammann to produce Ovomaltine.
Productivity Partnership for a Lifetime: impressions from the Ammann world

Inauguration ceremony in Yixin, China

Inauguration ceremony in Taizhou, China

World Cup competition, winners of the flat-screen TV
f.l.t.r. Dr Opel (Germany), K. Zbinden (Switzerland), J. Slana (Slovenia)

Anniversary celebrations in central Switzerland

Photo contributions
Send your best Ammann photos with an appropriate caption to the following email address: magazin@ammann-group.com

Trade fair schedule

2010

13.–15. October Infrastruktura, Poland, www.infrastruktura.info

2011

8.–11. February bC India, Mumbai, www.bcindia.com
New publications:

- ASPHALT PAVERS (8 pages, de/en/it/fr)
- VIBRATORY RAMMERS (8 pages, de/fr/en/dk/es/nl/ru/cz/pl)
- TRENCH ROLLERS (12 pages, de/fr/en/cz)

Download under:
www.ammann-group.com/media