

ASPHALT BATCH PREMIUM

HRT

HIGH RECYCLING
TECHNOLOGY



READY FOR TODAY AND TOMORROW
EASY UPDATES THROUGH SMART DESIGN

AMMANN

Ammann HRT asphalt-mixing plants provide the productivity you need while delivering cost-savings along every step of the process.

The plants can produce up to 400 ton per hour. They can provide high quality mix and offer a full rang of options to meet every specific need.

These premium plants are also capable of producing mix that utilises up to 100% RAP.



Check the video

INDEX

4	AMMANN BATCH PORTFOLIO
6	FEATURES
8	ADVANTAGES OVERVIEW
10	QUALITY & RELIABILITY
12	LOW ENVIRONMENTAL IMPACT
16	EFFICIENCY AND ENERGY SAVINGS
20	SUSTAINABLE SOLUTIONS
23	AS1 CONTROL SYSTEM
24	TRANSPORT & INSTALLATION
26	AMMANN AFTER SALES FOR PLANTS
30	AMMANN'S GLOBAL PRESENCE

AMMANN BATCH PORTFOLIO

Consistent from start to finish.
Ammann batch plants provide the
harmony that is crucial to your mix quality.

All plant processes and components are carefully developed to ensure that feeding, heating, drying, screening and mixing seamlessly blend together. Helping integrate all the moving parts is the as1 Control System, which provides leading technology with a user-friendly interface.

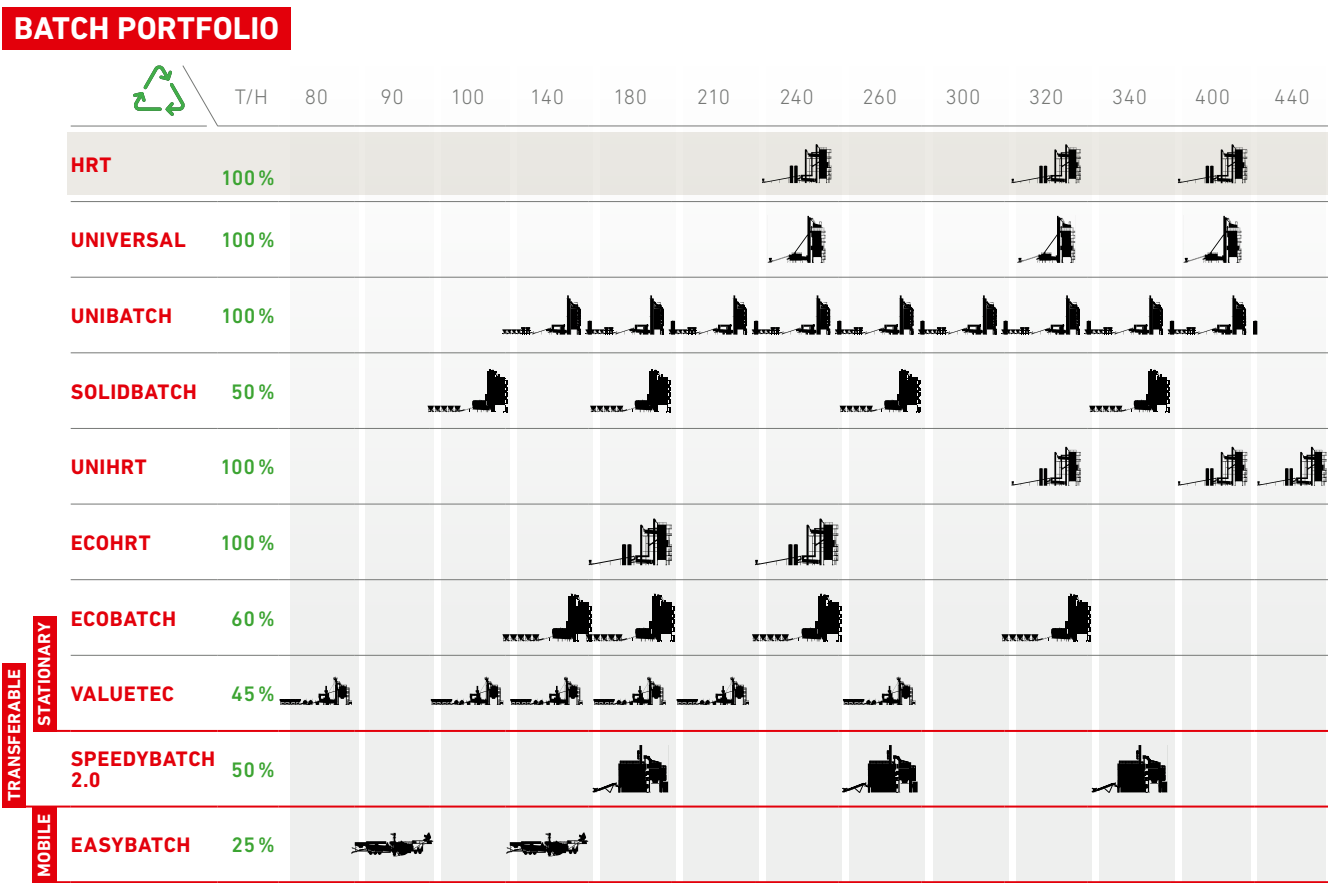
Some things never change

Ammann has had a presence in road construction equipment for over 150 years, collecting experiences and know-how and developing the technologies of the future.

What hasn't changed is how Ammann does business. To this day all core components are engineered and

manufactured in-house to create a perfect fit and ultimately provide quality, efficiency and long life. This approach also means a single point of contact for virtually all plant needs.

A century of industry expertise, meanwhile, ensures an understanding of your business and the development of plants that provide real-world solutions.



AMMANN HRT PLANT PERFORMANCE



PLANT TYPE	240				240–320			
RECYCLING SYSTEM	RAH60 (Parallel Flow)		RAH100 (Counter Flow)		RAH60 (Parallel Flow)		RAH100 (Counter Flow)	
MAX. RECYCLING ADDITION	up to 60 %		up to 100 %		up to 60 %		up to 100 %	
NUMBER OF RECYCLING FEEDERS	As desired							
CONTENT RECYCLING FEEDERS	10–15 m³							
TYPE RECYCLING DRYING DRUM	RT 22100	RT 25110	RT 25140	RT 25110/ 180 (200)	RT 25110	RT 25140	RT 25110/ 180 (200)	RT 29120/ 220
MAX. RECYCLING CAPACITY AT 3 % MOISTURE	120 t/h	150 t/h	180 t/h	150 t/h	150 t/h	180 t/h	150 t/h	190 t/h
MAX. BURNER POWER OUTPUT [MW]	8	10	12	10	10	12	10	14
FUELS	Natural gas, fuel oil extra light, heavy oil, brown-coal dust, wood dust, LPG							
FILTER CAPACITY [Nm³/h]	63 000	70 000	83 000	90 000	70 000	83 000	90 000	100 000 114 000
BUFFER SILO RECYCLING (RAH)	37 t, 2 × 20 t				37 t, 2 × 30 t, 2 x 28 t (LZ)			
NUMBER OF COLD FEEDERS	As desired							
CONTENT COLD FEEDERS	8–20 m³							
TYPE DRYING DRUM	T 2080, T 2390, T 25100				Preference: T 2390 Alternative: T 25100			
MAX. DRYING CAPACITY AT 3 % MOISTURE	195–340 t/h				Preference: 255 t/h Alternative: 340 t/h			
MAX. BURNER POWER OUTPUT	14–20 MW				Preference: 16 MW Alternative: 20 MW			
FUELS	Natural gas, fuel oil extra light, heavy oil, brown-coal dust, wood dust, LPG							
TYPE SCREEN	VA-2050-S / APS-2050-S				VA-2050-S / APS-2050-S		APS-2060-S / APS-2060 NGS	
SCREENING	5- or 6-fraction							
SCREEN SURFACE	36 m² (5-fraction) or 43 m² (6-fraction)				36 m² (5-fraction) or 43 m² (6-fraction)		43 m² (5-fraction) or 52 m² (6-fraction)	
HOT AGGREGATE SILO	64 t, 89 t, 115 t (1-row) 110 t (2-row 1/2)				86 t (only VA2050; only 1-row) 140 t up to 300 t (1-row or 2-row with preference 1/2)			
AGGREGATE SCALE	4650 kg				5000 kg			
FILLER SCALE	510 kg				900 kg			
BITUMEN SCALE	363 kg				520 kg			
MIXER SIZE / CONTENT	4 t				5 t, option: 4 t, 6 t			
MAXIMUM MIXING CAPACITY	320 t/h				400 t/h			
COLD RECYCLING ADDTION AT 3 % MOISTURE	Up to 30 % RAC addition directly into the mixer							
HOT MIX STORAGE SILO /COMPARTMENTS	200 t in 4 compartments Available expansions: 300 t in 6 compartments; 400 t in 8 compartments; 500 t in 10 compartments or 600 t in 12 compartments				400 t in 4 compartments Available expansions: 600 t in 6 compartments; 800 t in 8 compartments; 1000 t in 10 compartments or 1200t in 12 compartments			
BINDING AGENT SUPPLY	E-Bit, vertical configurations, 60 m³, 80 m³, 100 m³, also divided tanks available							
FILLER SUPPLY	According to customer's wishes: filler towers Ø = 3200 or Ø = 3800 in different desired configurations							

Recommended configuration; Please contact Ammann Sales Force for tuning your asphalt plant.

HIGH QUALITY, HIGH CAPACITY, HIGH RECYCLING TECHNOLOGY

Ammann HRT plants set the standard for mix production up to 400 ton per hour output classes.

The ABP 240-320-400 HRT (High Recycling Technology) plant sets new standards when it comes to innovation and technology – for today and tomorrow.

The compact plant is ideal for production volumes with large proportions of recycled asphalt.

It provides the same benefits as its Universal counterpart, but includes nuances that make it the ultimate recyclable plant.

An integrated parallel drum system is positioned directly above the mixer and optimises material flow while minimising wear and sticking inside the recycling system.





■ EQUIPPED
WITH THE LAST
TECHNOLOGIES
AND ALREADY
DESIGNED FOR
THE FUTURE
ONES. ■

HRT: THE PLANT READY FOR THE FUTURE

A plant perfectly tailored to your needs thanks to optimised energy consumption; innovative, maintenance-friendly features; and exceptional reliability. You'll add efficiency to your production process.

We continuously invest in technology and innovation to ensure the best solutions for efficiency, energy savings and sustainability. The utilisation of recycled asphalt lessens the plant's environmental impact while offering scalable solutions for specific needs.

Optimised transport and on-site assembly bring flexibility, cost effectiveness and immediate production to our customers.

Last, but certainly not least, is the highly advanced as1 Control System that furthers production efforts.



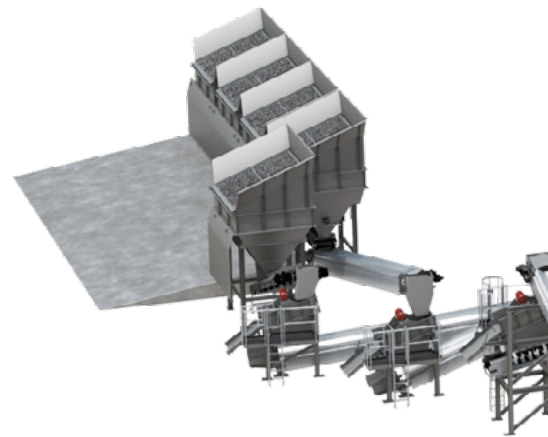
SUSTAINABLE SOLUTIONS

- Three different levels of RAP technologies: RAC30, RAH60, RAH100;
- Designed to produce **cold**, **warm**, and **hot** mix asphalt;
- Optimised and modular products can be upgraded at any time.



EFFICIENCY & ENERGY SAVING

- Ammann technology provides efficient energy consumption compared to competitive plants;
- Low energy consumption = low CO₂ emissions;
- Low energy consumption = reduced operating costs.



TRANSPORT & INSTALLATION

- Designed with shipping dimensions in mind for low-cost handling and transport;
- Optimized installation process thanks to a professional project management service.



ABP HRT



LOW ENVIRONMENTAL IMPACT

All plants designed:

- To have a positive visual impact in every location;
- To provide scalable solutions for air, sound and odour emissions.



QUALITY & RELIABILITY

- Ammann provides excellent value in dryers and burners, filter bags, screens and mixers, and control system;
- Special solutions such as Amdurit and Ammatex solve real customer problems.



AS1 CONTROL SYSTEM

- At work in more than 3000 plants globally;
- Most innovative and complete system ever designed for asphalt plants.



QUALITY & RELIABILITY



Learn more

Ammann asphalt-mixing plants utilise complex process engineering that requires perfect interaction between all individual components.

So essential is this integration that Ammann engineers all core components in-house – including drums, burners, filters, screens, controls and mixers.

Doing so is the only way to guarantee that our plants will meet the demanding requirements and standards of the modern market environment. Ammann is currently the only manufacturer of asphalt-mixing plants to offer this single-source approach, establishing us as a professional partner to handle every aspect of your asphalt-mixing plant. We provide answers when you need them and keep an open mind in order to fully understand your needs.



DRYER DRUM

- A single manufacturer provides all drying / heating / exhaust management processes, ensuring perfect attunement;
- A wide range of dryer sizes for plant capacities up to 400 ton per hour to meet varied needs;
- Optimised heat transfer stages and dryer insulation for maximum efficiency and fuel savings;
- Low-wear, low-maintenance design with high material quality and easy exchange of wear parts;
- Adaptable internal dryer design for use of varied aggregates and fuels.



BURNER

- Multi-fuel firing with simultaneous or alternating combustion of up to three fuel types for maximum flexibility;
 - A highly effective combustion process for low fuel consumption and emissions;
 - Combustion of solid pulverised fuel without the need of a supporting flame;
 - Integrated soundproofing for reduced sound; further reduction possible through a frequency converter;
 - Safety concept meets regulations of all countries.
- Available for varied liquid, gas and solid fuels:
 - Light oil
 - Heavy oil
 - Waste oil
 - Bio oil
 - Kerosene
 - LPG
 - Natural gas
 - LPG in a gas state
 - Coal dust
 - Wood dust



FILTER

- Proprietary rotor step mechanisms gently clean the filter bags;
- Filtration efficiency of 99.9 % ensures compliance;
- The largest possible surface provides optimal filtration efficiency;
- Minimal moving parts reduce maintenance and improve reliability;
- High-quality aluminium supporting cages are acid resistant;
- The CFD-supported baghouse design reduces temperature and pressure losses.



SCREEN

- Precisely controlled variables include stroke angle, amplitude, frequency, screen body design and mesh geometry. The result is the highest-performing screens in the market;
- Optimised for high temperatures;
- The screen is state-of-the-art;
- Easy integration due to identical interfaces.



MIXER

- Minimal wear through protected components and an efficient mixing process;
- Compulsory twin-shaft mixer provides highest shear forces;
- Optimal homogeneity and mixing time through the unique Ammann paddle arrangement;
- Maximum sequence design flexibility that enables production of special mixes.



LOW ENVIRONMENTAL IMPACT

A shortage of industrial land means that asphalt-mixing plants must increasingly be located closer to residential areas.

That makes it more important than ever that plants minimise noise in an effort to be good neighbours and to meet local requirements.

- Ammann offers four levels of noise suppression;
- Ammann plants are designed for easy cladding;
- Cladding prevents dust and fumes from being released in the atmosphere;
- Cladded plants are aesthetically pleasing—an essential factor when seeking approvals in urban areas.

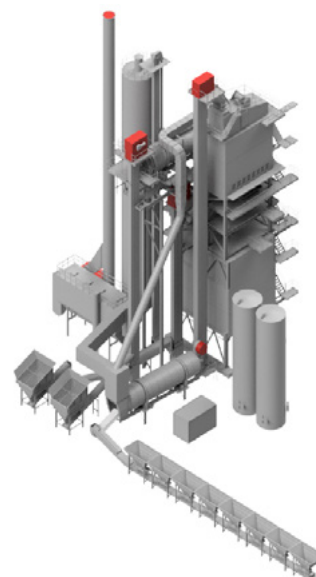


LEVEL 1

An economical, effective approach

Includes several basic cost-conscious efforts:

- The burners are equipped with variable speed drives so the electric motor can be slowed – and made quieter – when full power isn't needed;
- A stack silencer, which is essentially a chute inserted in the chimney, acts as a sound suppressor;
- Head stations of the elevators for reclaimed asphalt pavement (RAP) and virgin aggregates (VA) are covered with panelled cladding to reduce sound levels from the inside;
- Sound-inhibiting walls are placed around the plant exhauster to cancel noise from inside.

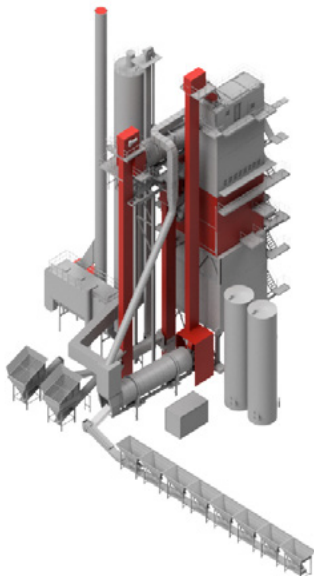


LEVEL 2

Covering main emitters

Builds on Level 1 and then offers several additions and upgrades:

- The burners are covered with panelled cladding;
- The RAP and VA elevator shafts are insulated to minimise the sound of turning chains and falling material;
- The RAP and VA transfer chutes are insulated;
- Sound-inhibiting walls are placed around the plant exhauster to cancel noise from inside;
- A Next Generation Screen (NGS) replaces the standard vibration screen for VA. The NGS, a premium screen, is impervious to dust and double enclosed;
- The mixer and weighing level are clad with trapezoidal panels;
- The oversized coarse grain channel is insulated.

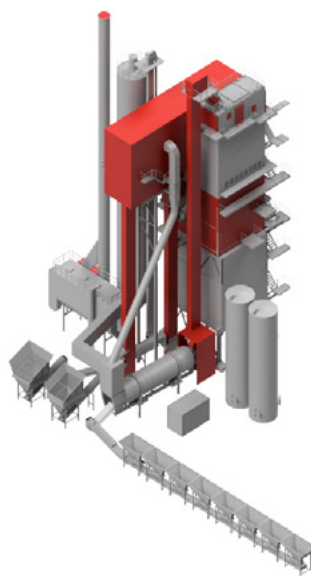


LEVEL 3

Cladding for further reductions

Builds on Levels 1 and 2 and then offers several additions and upgrades:

- The RAP dryer section is clad with sound absorption panels;
- The Next Generation Screen maintenance doors and openings are sealed with sound-absorption panels;
- The mixer and weighing level are clad with sound-absorption panels (An improvement from trapezoidal sheets in Level 2).

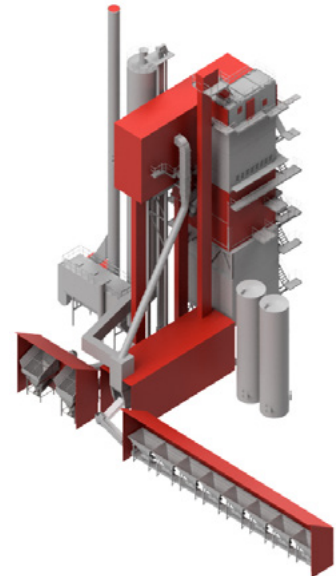


LEVEL 4

The quietest plant possible

Builds on Levels 1, 2 and 3 and then offers several additions and upgrades:

- The VA dryer and the burner are fully surrounded by a housing with sound-absorption panels;
- The cold feeders utilise three-sided housing;
- A sound-suppression housing is placed over the bitumen pump and compressor unit.





LOW ENVIRONMENTAL IMPACT

Bitumen fumes are the primary source of odour. Ammann offers different solutions to reduce the fumes – and the odour that can result.





Blue Smoke Treatment

The system, developed by Ammann, addresses the blue smoke that is released during truck loading.

With this process, the vapours are aspirated at the skip or diverted under the mixer – not near the discharge doors of the finished product silo.

The system is based on the principle that hot air rises, thus decreasing the volume above the finished product silo. At this point in the process, blue smoke is piped to a cooling system for the condensation of the oily phase – and subsequently to an oil separator for the capture of the finest oily particles.

The treated gases are transferred to the burner and ignited.



Odour Neutralization System

The system attacks odour emissions at two key points.

1. A special kit inserted in the chimney neutralizes emissions generated during production;
2. In addition, a mist barrier blocks odours in the load-out area.

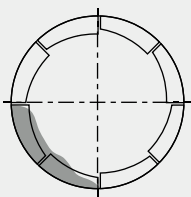


EFFICIENCY & ENERGY SAVING

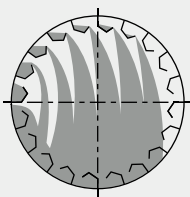
Ammann plants enable customers to carry out their duties efficiently and productively. The plants help customers work smarter, not harder.

Dryer

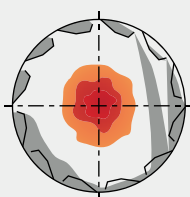
- HRT dryers are highly efficient at production levels of up to 64 t/h (at 3 % moisture content) per square metre – 22 % more efficient than the existing standard.
- This results in low energy consumption, which in turn reduces fuel costs and CO₂ emissions.
- The heating exchange efficiency in the dryers facilitates fume temperatures that are normally between 85 °C to 90 °C.
- That temperature range is 20 °C less than competitive dryer drums and can be measured in savings of 1 kWh/T.



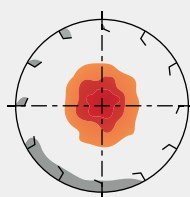
CONVEYING



CONVECTION



RADIATION



DISCHARGE





Our sustainable
promise

Filter

- Less pressure lost means lower energy consumption.
- The new design ensures uniform distribution of exhaust air inside the filter.
- Proper distribution/filling utilises more of the bag surface and improves efficiency.

Burner

- New technology controls the flame shape.
- More power can be given in smaller dryers, resulting in efficiency and energy savings per ton of aggregates dried and heated.
- A special software optimises air/fuel mixing for increased combustion efficacy, leading to significant annual savings in fuel.



EFFICIENCY & ENERGY SAVING



AMMANN FOAM

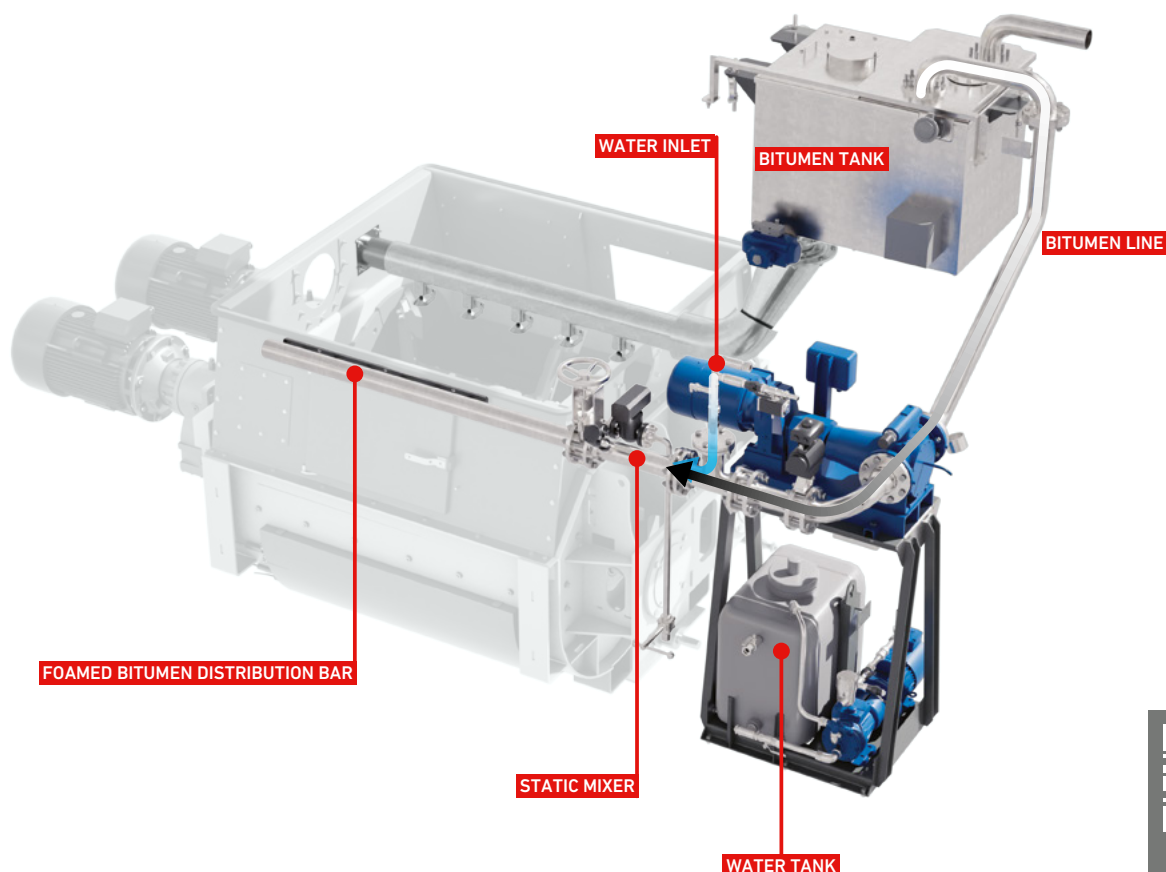
Ammann believes low temperature asphalt mixes are the future of the asphalt industry. Therefore, we developed the Ammann Foam System in collaboration with our customers and internal experts.

The low temperatures associated with the use of Ammann Foam provide big advantages:

- Higher workability during mix production and placement;
- Improved compaction performance;
- Extension of the paving season;
- An ability to deliver mixes longer distances;
- Better recycling performance.

Using Ammann Foam to produce warm mix asphalt (WMA) provides additional benefits:

- Reduced VOC emissions from bitumen;
- Lower levels of gas emissions and CO₂ from savings in drying and heating of virgin aggregates;
- Diminished fumes, emissions and odours;
- Quicker opening of roads to traffic;
- Savings in production costs through reduced energy consumption.



Learn more

AS1 ECOVIEW

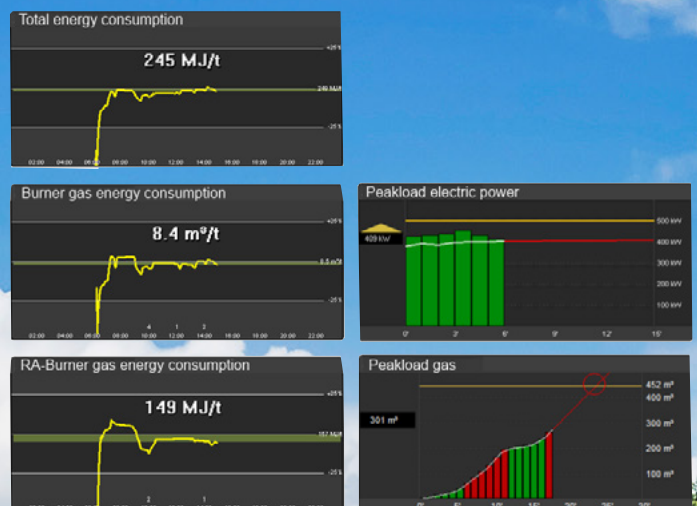
This as1 module helps uncover and eliminate energy waste.

An intuitive display informs operators and enables immediate adjustment. This gives operators the data they need to make decisions around throughput and material control to maximize savings and efficiencies

EcoView also determines the values of emitted CO₂ and calculates energy costs that result when adjustments are made, and operations become more efficient.

HIGHLIGHTS

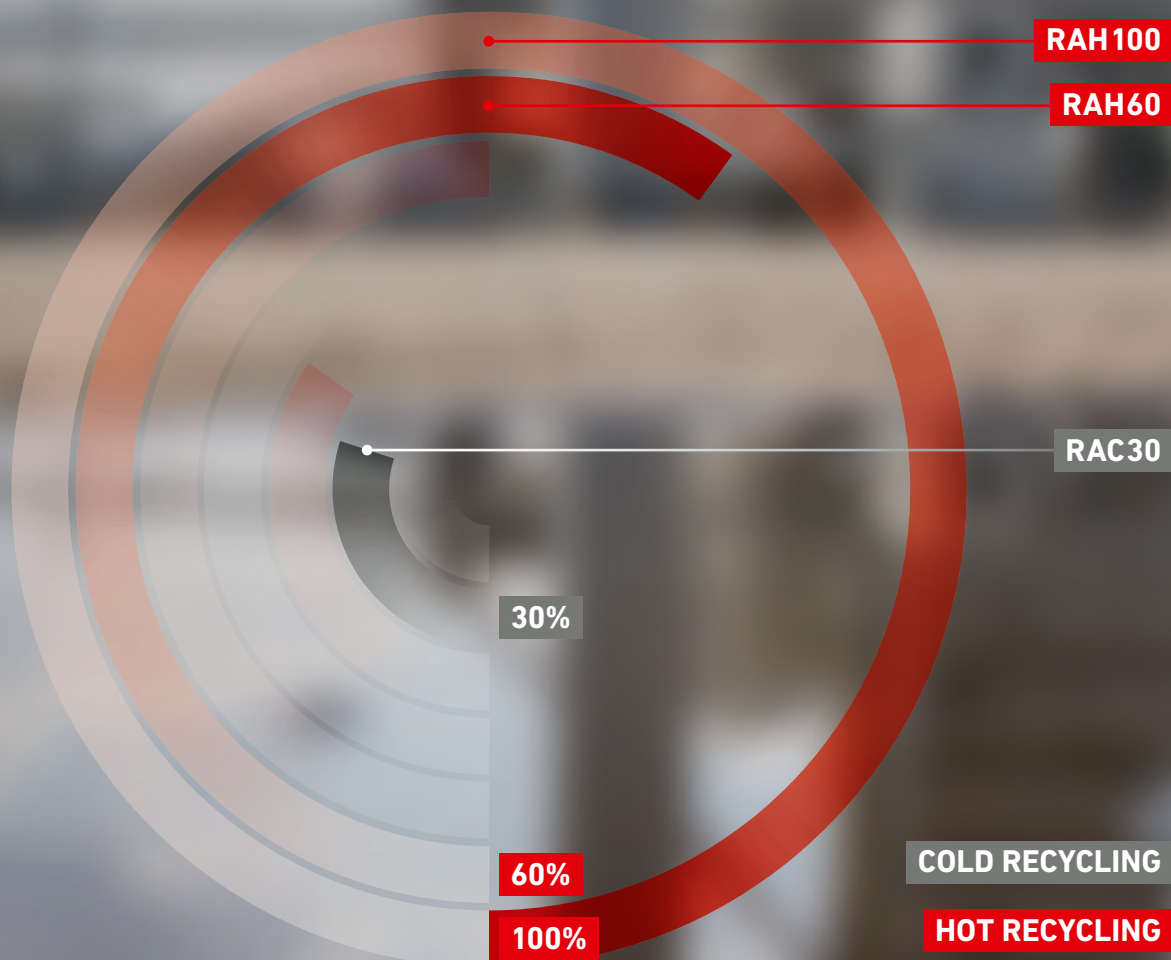
- Intuitive operator display showing how efficient the plant runs;
- Displays key values and enables comparison to reference values and previous periods;
- Determines the emitted CO₂ values;
- Determines the resulting energy costs.





SUSTAINABLE SOLUTIONS

The use of recycled asphalt is a necessity given today's sustainability needs. Ammann is a world leader in the development of RAP technology.



UP TO 30% COLD FEED INTO THE MIXER



BENEFITS

- New minerals can be screened;
- Batch quantity variable with each load;
- Max. flexibility (recipes);
- Independent from rest of process.



UP TO 60% HOT FEED IN PARALLEL DRUM RAH60



BENEFITS

- New minerals can be screened;
- High feed ratio;
- Gentle heating;
- Combinable with cold feed system.

100% HOT FEED IN RECYCLING DRUM RAH100



BENEFITS

- Recycling rates of up to 100% are achievable;
- Lowest-emission solution: meets the strictest regulations;
- Improved process and efficiency: cost benefits through fuel savings and correct reuse of RAP;
- Recipes are more flexible as there is no need to overheat the minerals.

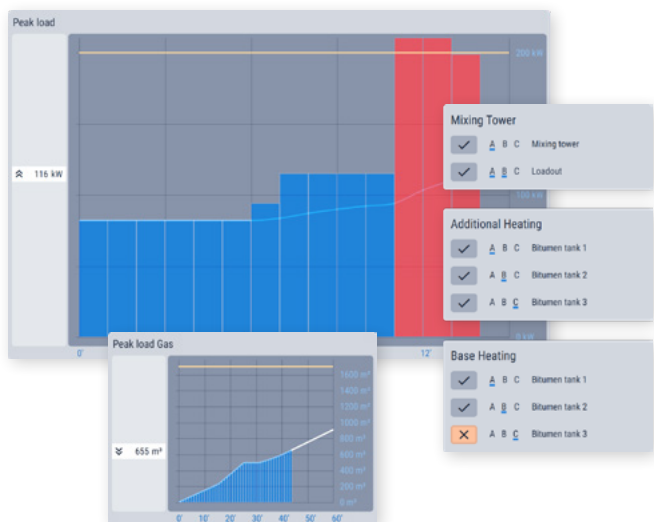
as1 Peak Load Management

Energy suppliers typically base pricing on usage or capacity. For the latter, the measured peak sets the price. Therefore, it is in the best interest of plant owners/operators to keep usage as low as possible during peak loads.

The as1 Peak Load Management module continuously monitors peak usage against critical values. It predicts peak times and reduces load during the costliest periods.

Some plant devices can be switched off during these periods. The module also utilises automatic stepping based on forecasts.

Peak Load Management works seamlessly with the as1 EcoView module and is available for both electricity and gas.



HIGHLIGHTS

- Prevents short-term, expensive usage during peak loads;
- Forecast function;
- Automatic switch off for electrical consumers.

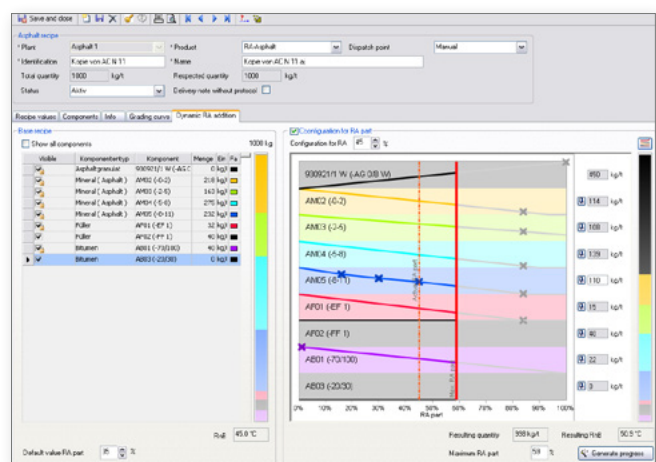
as1 Dynamic Recycling Addition

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

It is designed to ensure that RAP addition, and therefore binder saving, are always maximized: This gives operators the confidence to keep throughput high while maintaining quality as the overarching priority. This, in turn, ensures that efficiency is excellent and therefore profitability is maximized.

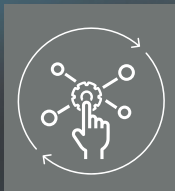
Various RAP ratios in a single recipe

Use of reclaimed asphalt protects natural resources and also offers economical advantages. The optional as1 module "dynamic RAP addition" makes it easy to modify the RAP ratio in accordance with requirements, even during production.



HIGHLIGHTS

- The integrated wizard guides operator through the recipe input process;
- One recipe is sufficient for numerous RAP ratios;
- Change the RAP ratio by using the slide controls during production.



AS1

CONTROL SYSTEM

The powerful and future-oriented as1 system concept combines proven Ammann software with specially matched industrial hardware.

The as1 computing environment has been designed and tested for use in tough environments. Its networking capability also has been optimised. Customers profit from the flexible workstation configuration, networking and administration.

THE FIELD BUS SYSTEM

Guarantees reliable signal transmission

The proven field bus system is robust and reliable under tough operation. Faults can be detected efficiently and rectified by means of the diagnostic tools, even via remote support.

THE POWER CABINET'S COMPONENTS

Designed for tough, round-the-clock operation

The power cabinet's components have to withstand extreme stress 24 hours a day, which is why Ammann only uses tried-and-tested, globally available quality components from renowned manufacturers.

HOTLINE AND SUPPORT

Plant availability assured

Electromechanical faults can be quickly resolved by the customer's own personnel with the help of the electrical circuit diagrams and the as1 diagnostic tools.

Ammann's knowledgeable customer service team staffs the hotline, which can be called for fault diagnosis or maintenance at any time. Modern telecommunications media increase the availability of the plant and reduce the need for costly on-site servicing.

HIGHLIGHTS

- Comprehensive system functionality;
- Quick and easy to learn;
- Safe to operate;
- Proven field bus and load sharing concept with highest reliability;
- Professional hotline and support organisation ready for service worldwide.





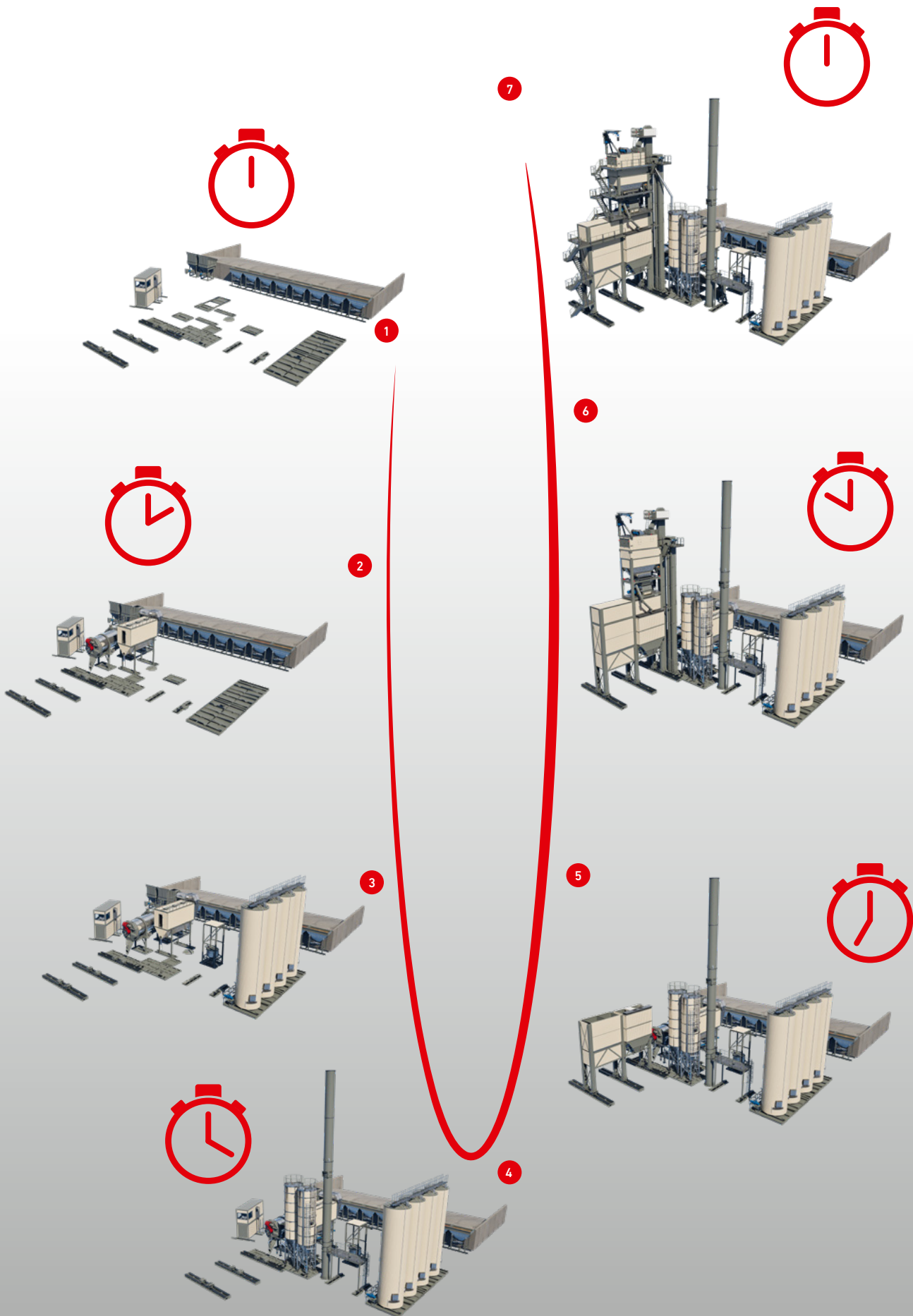
TRANSPORT & INSTALLATION

Ammann plants are designed and engineered to simplify transport and on-site assembly.

Cost-effective transport and erection are essential to customer value. Plant options include steel bases that enable installation on stabilised soil – without the need of a concrete foundation. All cables are pre-assembled and tested in house.



QUICK INSTALLATION



AMMANN AFTER SALES FOR PLANTS

Contracted maintenance services and technician training provided by Ammann help protect your investment, while operator training ensures your team is able to utilise all the features and benefits built into your plant. When your needs change, Ammann offers retrofit options that can provide you with a good-as-new plant at a low cost.

Retrofitting

- Improve the technological level of the plant;
- Increase component life;
- Increase the plant's efficiency.

Original Spare Parts

- Maintain the initial performance of the plant;
- Maximise plant use times (no stops in production);
- Monitor the maintenance costs.



Training

- Increase the plant's efficiency;
- Reduce unnecessary costs;
- Maximise plant use time.

Technical Service

- Assembly and professional testing of the system;
- Technical assistance;
- Preventative maintenance.

AMDURIT

Amdurit, Ammann's proprietary wear-protection system, provides up to three times the service life of wear-resistant steel and protects valuable parts and components.

BENEFITS

- Three times more durable than wear-resistant steel;
- Lower operating costs;
- Longer lifetime;
- Fast installation;
- Reduced downtime.



AUTOMATED LUBE SYSTEM

What if a single procedure could extend the life of your plant, reduce fuel costs and improve safety, too?



BENEFITS

- The Ammlub system is directly mounted on the lubrication point and guarantees continuous relubrication at short intervals;
- Lubricants can be replaced while the plants are running, optimising routine maintenance while keeping your plant productive;
- Improves safety by removing workers from the process;
- Reduces energy costs up to 10%.

AMMATEX FILTER BAGS

Multiple filter bag types are available to ensure you have a perfect fit at your plant.

BENEFITS

- Precise manufacturing ensures quick installation and a perfect fit;
- Suitable for all fuel types;
- Exceptional price/performance ratio;
- Low emission values thanks to proper sealing and fitting;
- Reduced plant operating costs due to extended life of bags.



AMMANN'S GLOBAL PRESENCE

An Innovative, Sustainable Business

Ammann is a world-leading supplier of mixing plants, machines and services to the construction industry, with core expertise in road-building and transportation infrastructure. We are committed to sustainability – in both the products we make and the ways we make them.

Our strengths are the forthcoming approach of a family firm that has been operating for many years, coupled with our strong and well-established international presence. Since 1869, we have been setting benchmarks in the road-building industry, thanks to countless innovations and solutions that are as competitive as they are dependable.

True to our motto, "Productivity Partnership for a Lifetime," we gear our activities to the needs and requirements of our customers around the globe. Plants and machines that consistently prove their merits under demanding conditions are the best way to give our customers the critical, competitive edge they need.

Our reliable, punctual service network provides the essential spare parts that keep our customers working – and supports the plants and machines throughout their lifetimes.

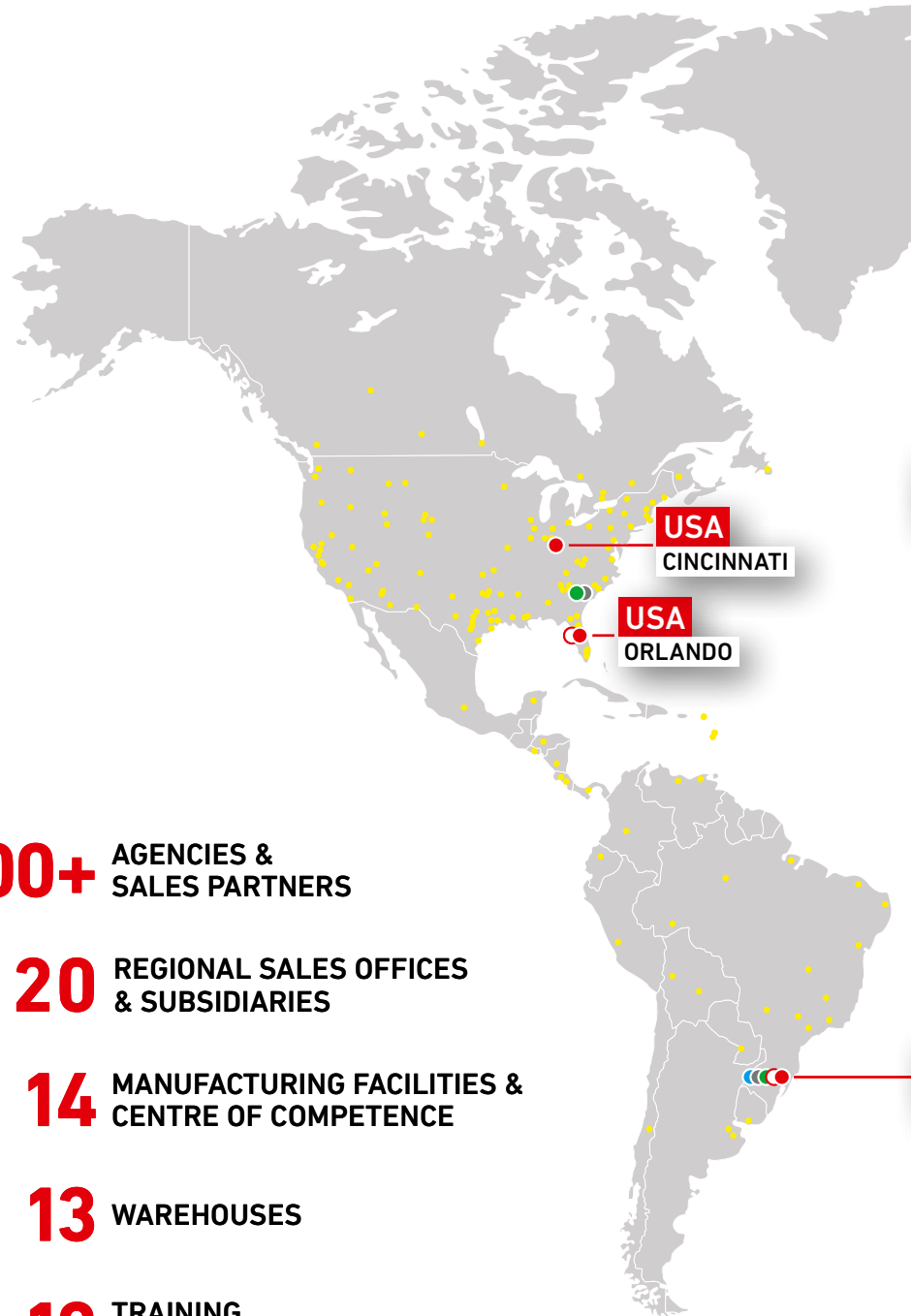
200+ AGENCIES & SALES PARTNERS

20 REGIONAL SALES OFFICES & SUBSIDIARIES

14 MANUFACTURING FACILITIES & CENTRE OF COMPETENCE

13 WAREHOUSES

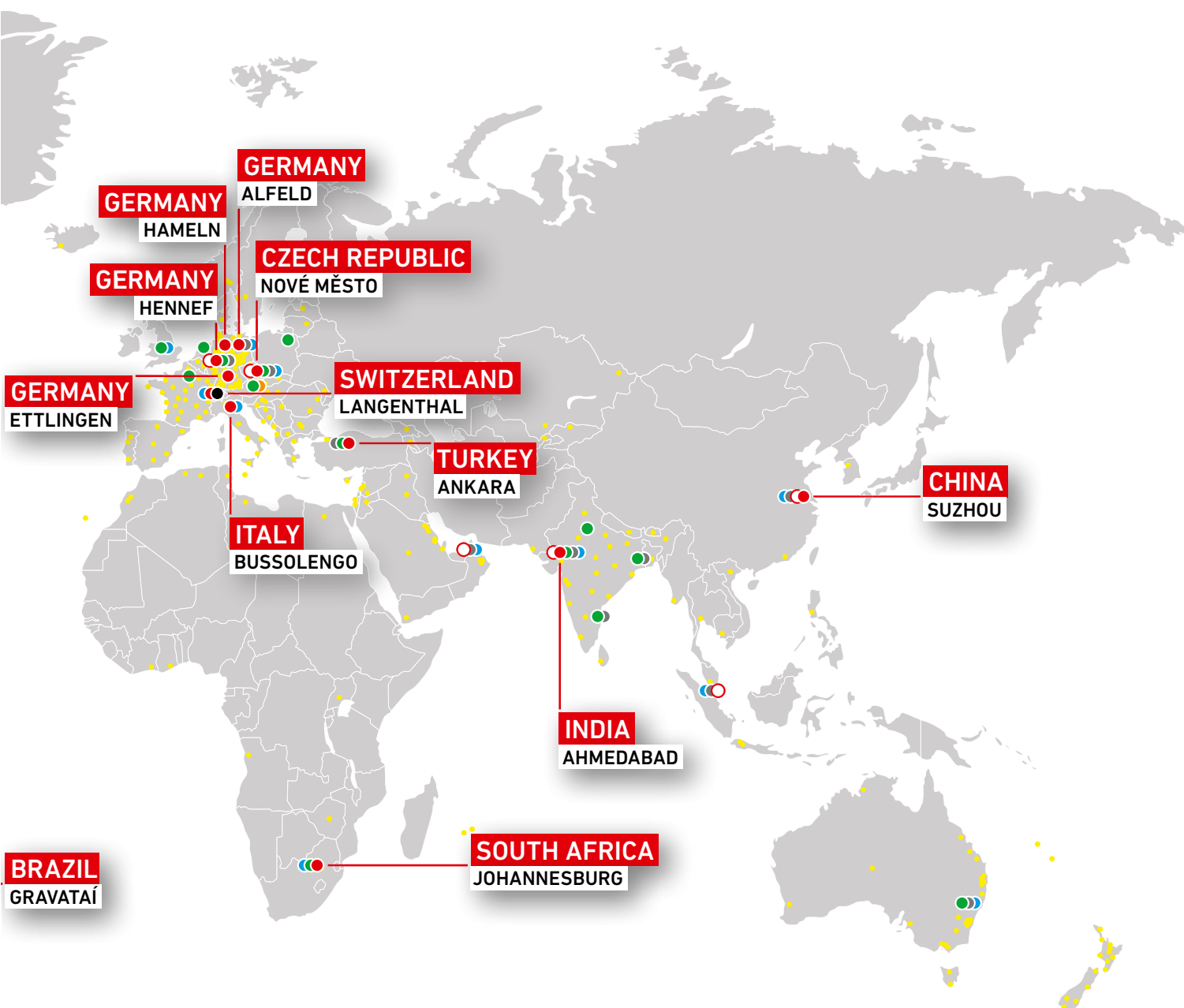
12 TRAINING CENTRES



PLANTS

ASPHALT-MIXING PLANTS

CONCRETE-MIXING PLANTS



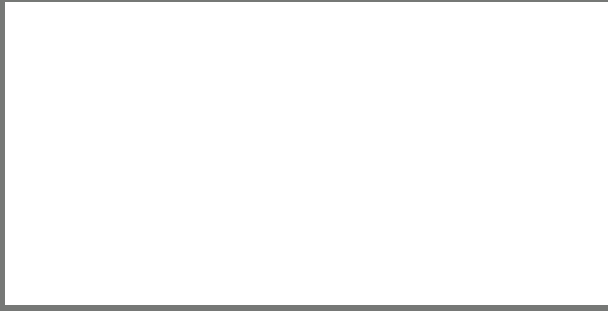
GLOBAL DISTRIBUTION & SERVICE NETWORK

- HEADQUARTERS
- REGIONAL SALES OFFICES
- SUBSIDIARIES
- AGENCIES & SALES PARTNERS
- MANUFACTURING FACILITIES & CENTRE OF COMPETENCE
- GLOBAL RETROFIT CENTRE
- WAREHOUSES
- TRAINING CENTRES



MACHINES

LIGHT COMPACTION
SOIL & ASPHALT COMPACTION
ASPHALT PAVERS



For additional product information
and services please visit:
www.ammann.com

