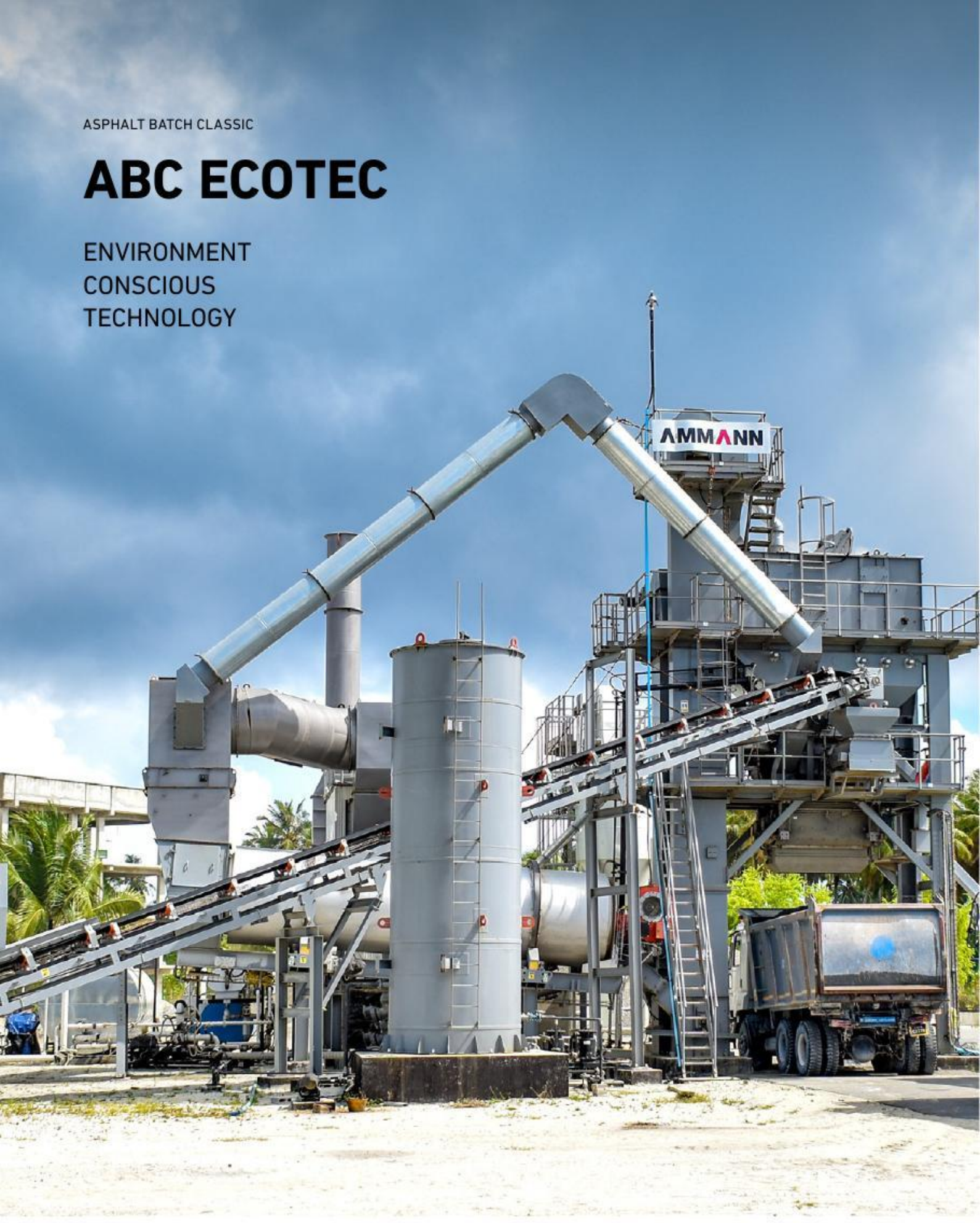
ASPHALT BATCH CLASSIC

ABC ECOTEC

ENVIRONMENT
CONSCIOUS
TECHNOLOGY



READY FOR TODAY AND TOMORROW
EASY UPDATES THROUGH SMART DESIGN

AMMANN

CONFIGURATION ABC ECOTEC

Dryer Drum

- The dryer internals, the flame room and the lifters are designed to avoid sticking of wet materials in the feed zone, to optimise combustion conditions, to minimise pollutant emissions and to provide excellent heat transfer conditions in the radiation and convection zones.

Cold feed

- A compact, modular four-bin feeder ensures quick transport and assembly.
- Highest feed precision through volumetric control, with frequency converters.
- L-formation is possible

Bitumen tanks

- With or without Thermal heating Fuel tank

Filter

- Very few moving parts for low maintenance and high reliability.
- Optimised bag house design ensures lowest temperature- and pressure losses and therefore significantly reduce operational costs.

Screen

- Highest throughput and grading accuracy due to maximized specific screening performance.

Hot aggregate silo

- 4 aggregate compartments
- Optimised silo and pocket geometries in order to avoid segregation of aggregate fractions.

Mixer

- 1.7 tonnes twin-shaft paddle mixer

Recycling options

- Cold Recycling additon up to 25 %

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.

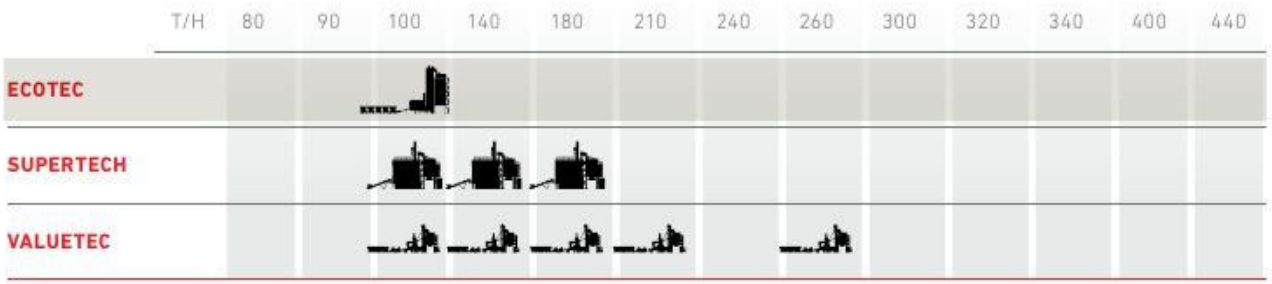
Some things never change

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.

BATCH PORTFOLIO



AMMANN ECOTEC PLANT PERFORMANCE

PLANT TYPE	120
CONTINUAL PLANT CAPACITY AT 3 % MOISTURE**	120 t/h
NUMBER OF COLD FEEDERS	4
CONTENT COLD FEEDERS	8 m^3
DRYING DRUM: DIAMETER / LENGTH	1.8 m / 7 m
DRUM DRIVE	7.5 × 4 kW
BURNER POWER OUTPUT	10 MW
FUEL TYPES	Light or heavy oil
FILTER CAPACITY	33 000 m^3/h
FILTER SURFACE	254 m^2
SCREEN WIDTH / LENGTH	1.2 m / 3 m
SCREENING	4- fraction
SCREEN SURFACE	13 m^2
HOT MINERAL SILO	15 t
AGGREGATE SCALE	2000 kg
FILLER SCALE	200 kg
BITUMEN SCALE	150 kg
MIXER SIZE / MAX. CONTENT*	1.7 t
BITUMEN TANK CAPACITY	15 m^3, 30 m^3 or 50 m^3 – Horizontal – Thermic oil heated
FUEL TANK CAPACITY (LIGHT AND HEAVY OIL)	18 000 l, 24 000 l – Vertical – Thermic oil heated for heavy oil
FILLER SUPPLY	As per project requirement

*The improved addition of filler and bitumen into the mixer increases mix efficiency of 85 batches per hour.

**Hot mix production capacity based on following conditions: 10 % bitumen and filler addition, input moisture of aggregate 3 %, aggregate temperature increase 175 K and 0/2 fraction share max. 40 % | Mixing cycles 85 per hour.

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
  - Hydrogen
  - 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.

EFFICIENCY & ENERGY SAVING

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

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.

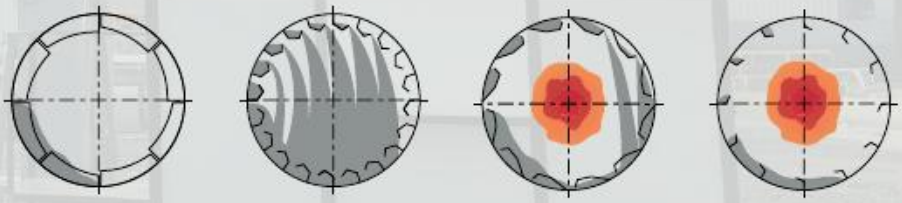
Burner

- 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.

Our sustainable promise

Dryer

- Ammann dryers are highly efficient at production levels of up to 260 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 CO_2 emissions;
- Recycling rate up to 40% at 2% H_2O;
- Designed to produce cold, WMA, and hot mix asphalt;
- That temperature range is 20 °C less than competitive dryer drums and can be measured in savings of 1 kWh/T.



EFFICIENCY & ENERGY SAVING

AMMANN FOAM 450+ SYSTEMS WORLDWIDE

AMMANN FOAM

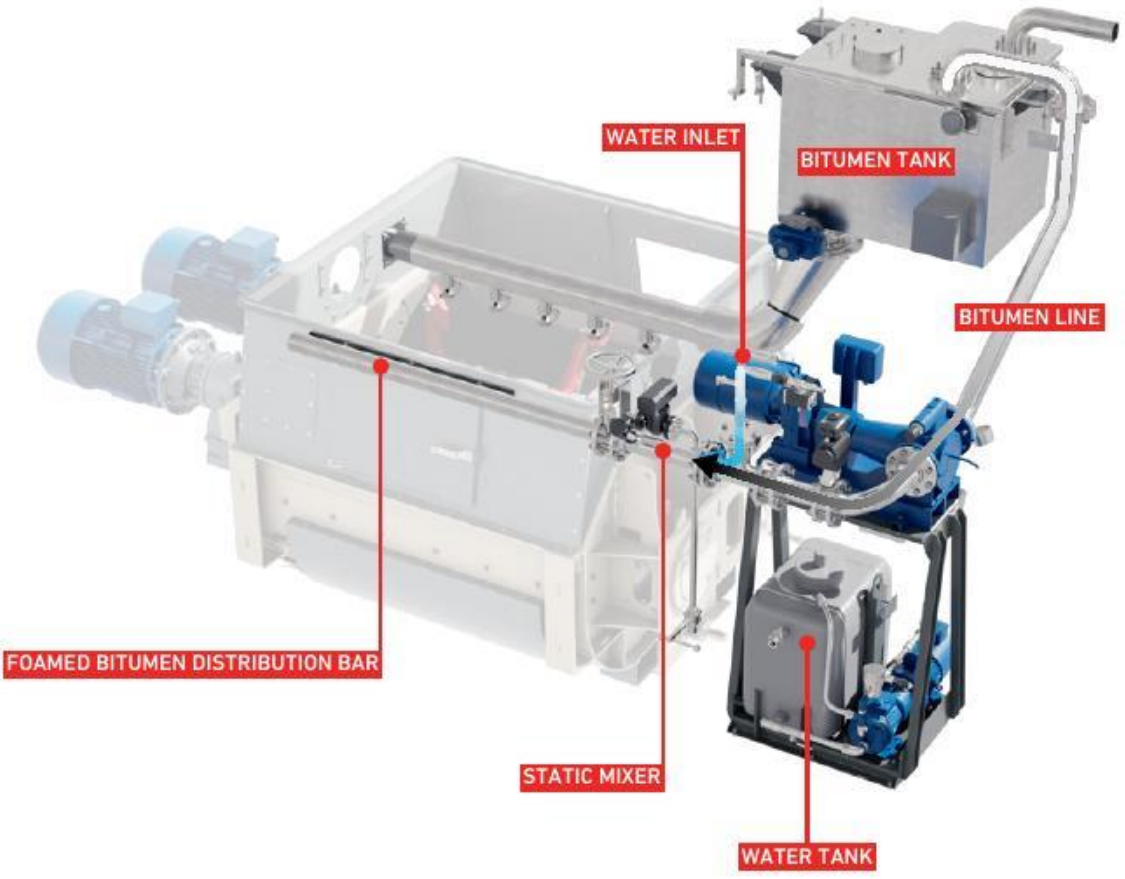
Ammann believes low temperature asphalt mixes are the future of the asphalt industry. Therefore, we developed the Ammann Foam System in collaboration with our customers and internal experts.

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 CO_2 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

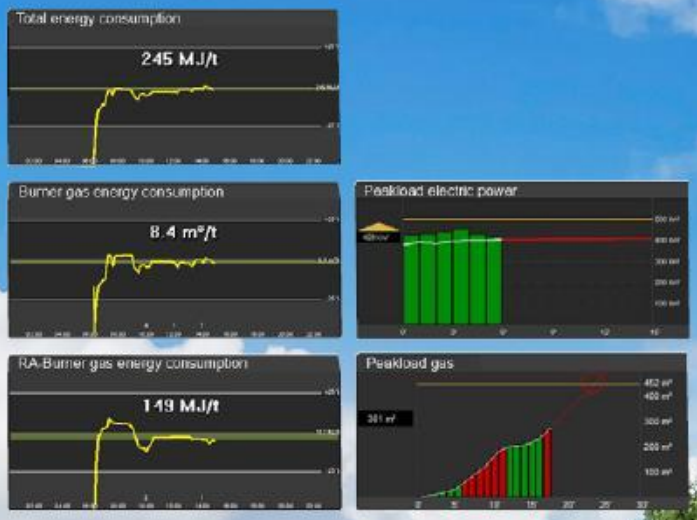
This AS1 module helps uncover and eliminate energy waste.

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 CO_2 and calculates energy costs that result when adjustments are made, and operations become more efficient.

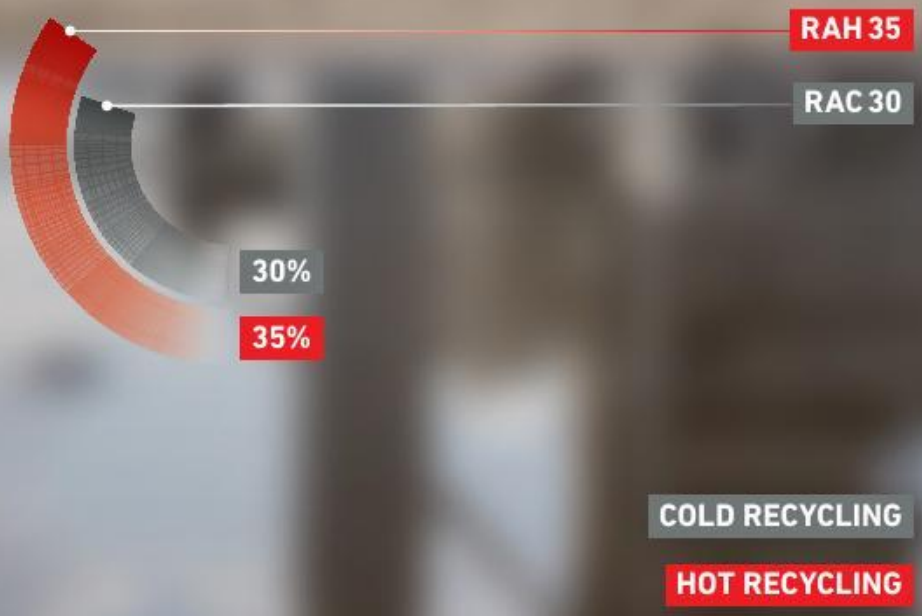
HIGHLIGHTS

- Intuitive operator display showing how efficient the plant runs;
- Displays key values and enables comparison to reference values and previous periods;
- Determines the emitted CO_2 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

- Recycling rate up to 30%;
- Limited initial investment;
- RAP is dried-heated directly in the mixer in contact with overheated aggregates;
- No sticking in mixing tower;
- New minerals can be screened;
- Batch quantity variable with each load;
- Max. flexibility (recipes);
- Independent from rest of process;
- Smart solution when combined with RAH50 2nd Gen.

UP TO 35% HOT FEED RAH 35

BENEFITS

- Processes RAP proportions of up to 35% (RAH35);
- Optimal investment/performance ratio;
- Energy savings through efficient processing of new material;
- Lower emissions, thanks to gentle heating of RAP;
- Advanced technology – as proven by Ammann's industry leadership and three international patents.

SUSTAINABLE SOLUTIONS

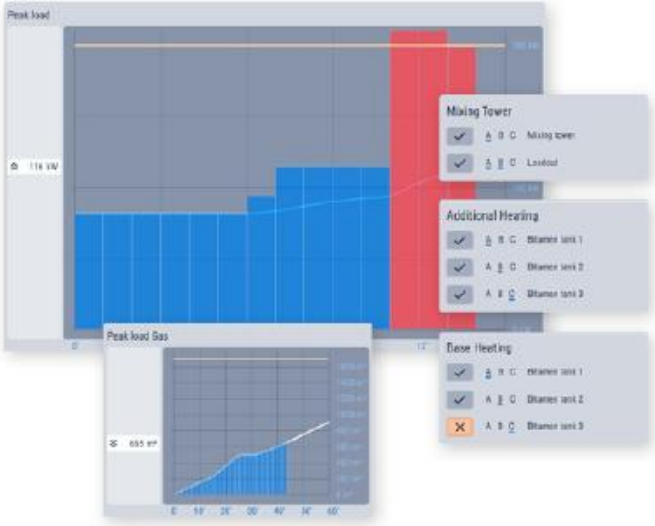
AS1 Peak Load Management

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.

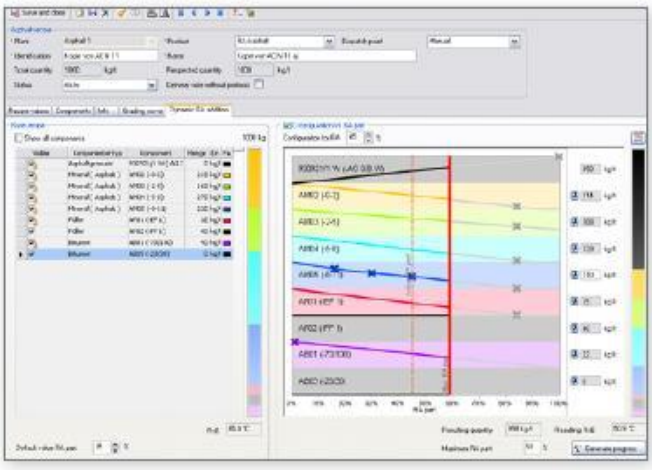
AS1 Dynamic Recycling Addition

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.

ADDITIONAL COMPONENTS

RAP ADDITION SYSTEM

The RAP Addition System enables seamless incorporation of Reclaimed Asphalt Pavement (RAP) into the mixing process using the RAC Cold Addition method. RAP is added without preheating, allowing up to 25% incorporation (at 3% moisture).

- Specially designed RAC bin feeder to prevent sticking
- Vibrators with VFD control for smooth operation
- RAP belt elevator with drive, head & foot stations
- Cold RAP feed device with platform for direct mixer feeding

CELLULOSE FIBER ADDITION SYSTEM

Designed as per MoRTH and IRC norms, the system:

- Prevents drain-down in gap/open-graded mixes
- Enhances strength, stability & rutting resistance
- Improves crack resistance in dense-graded mixes
- Acts as a stabilizer for durable roads

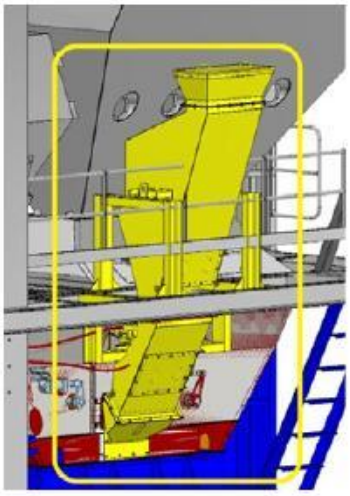
Key Components : Storage & buffer silos • Cellular wheel • Injector • Blower • Conveying pipe • Cyclone • Level indicator • Rotary valve • Weighing scale • Direct-feed chute

WASTE PLASTIC ADDITION SYSTEM

As per IRC guidelines, waste plastic can be directly incorporated into the asphalt mix after precise weighing. Added in a dry state, it acts as a binding agent, with dosage typically ranging from 5% to 10% of the bitumen content.

System Features : Storage hopper • Weighing mechanism • Direct-feed chute to mixer

This system ensures seamless integration of waste plastic, promoting greener, stronger, and more sustainable roads.

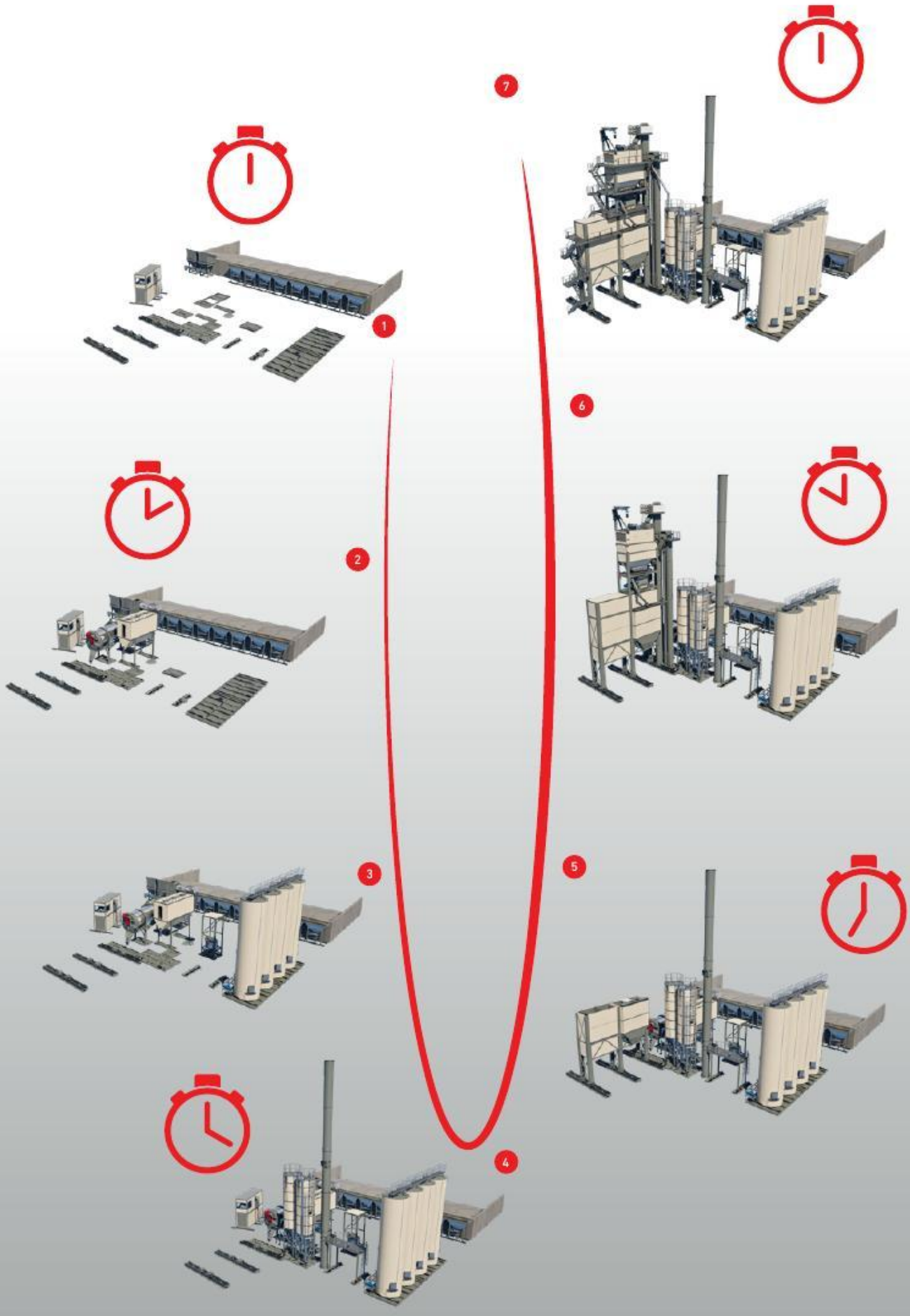


TRANSPORT & INSTALLATION

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



ECOTEC
PLANT POPULATION

TOTAL 300+ ECOTEC PLANTS DELIVERED

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.


AMMANN

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.

GLOBAL DISTRIBUTION & SERVICE NETWORK

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

AMMANN INDIA

INDIAN DISTRIBUTION & SERVICE NETWORK

- MANUFACTURING FACILITIES & CENTRE OF COMPETENCE
- SALES & SERVICE OFFICES
- WAREHOUSES
- TRAINING CENTRES
- DEALER NETWORK

MACHINES

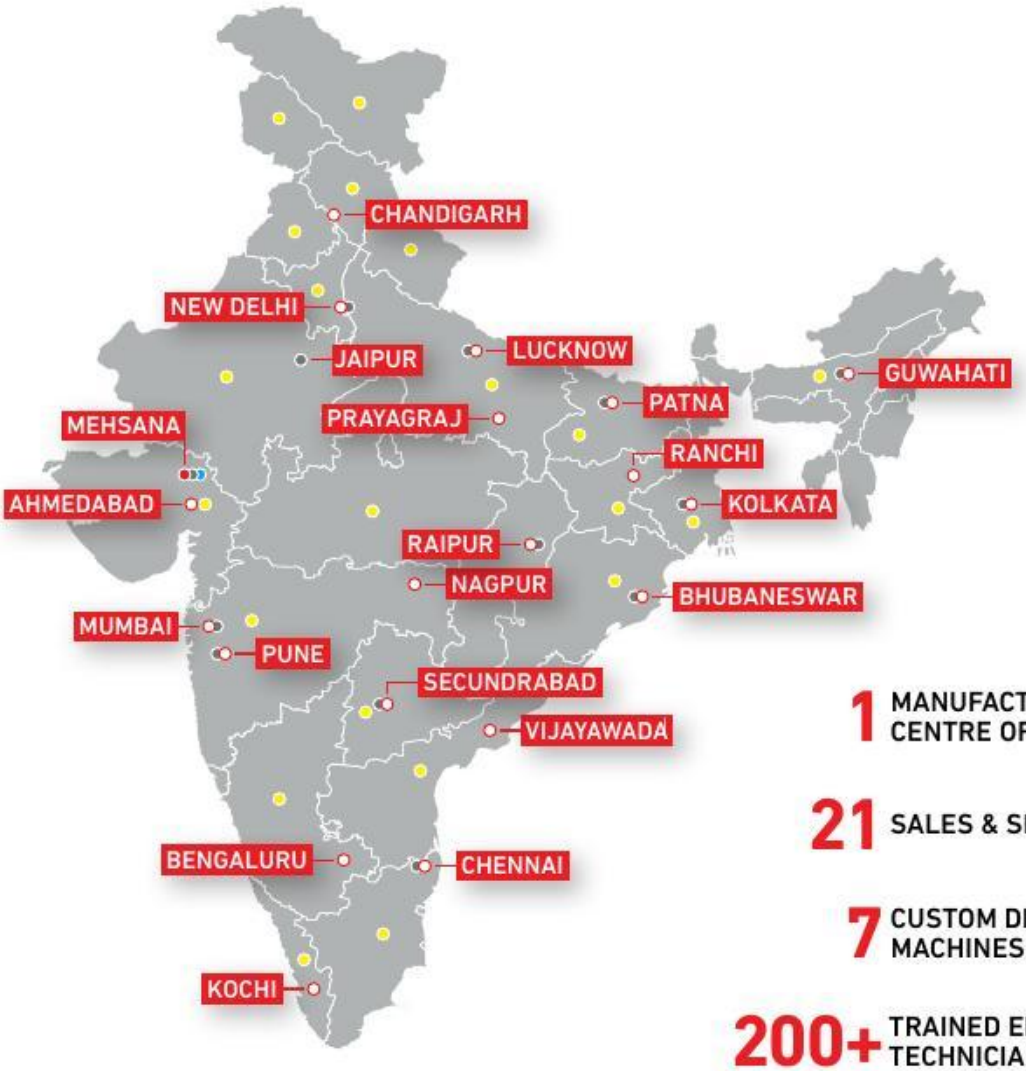
SOIL & ASPHALT COMPACTION

ASPHALT PAVERS

PLANTS

ASPHALT-MIXING PLANTS

CONCRETE-BATCHING PLANTS



1 MANUFACTURING FACILITY & CENTRE OF COMPETENCE

21 SALES & SERVICE OFFICES

7 CUSTOM DESIGNED PACKAGES FOR MACHINES & PLANTS SUPPORT

200+ TRAINED ENGINEERS & TECHNICIANS ACROSS INDIA

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