ASPHALT AND CONCRETE MIXING PLANTS

PLANT GUARD DIGITAL SOLUTIONS AND SERVICES

SMARTER PRODUCTS



DIGITAL SOLUTIONS TO IMPROVE YOUR PLANT
PERFORMANCE AND OPTIMIZE YOUR BUSINESS

AMMANN

STATE OF THE ART TECHNOLOGY FOR YOUR PLANT

The Ammann Plant Guard provides you multiple advantages to bring your operation to the next level.

With the Ammann Plant Guard module “Condition Monitoring”, you receive accurate production and operation data visualized through modern and meaningful dashboards. It provides real-time information on your core KPIs from your as1 Control System and specific sensors. Additionally, you can access AI (Artificial Intelligence) predictive data models to maximize the value of your data.

All information is centralized in one place to ensure efficient plant operation.

The Ammann Plant Guard also includes the “Maintenance Manager 4.0“ module, where you have all the necessary information to perform maintenance tasks. It comes with comprehensive maintenance plans and the flexibility to add or modify them to suit your requirements.

The Ammann Maintenance Manager 4.0 not only helps you plan maintenance but also provides detailed instructions on how to perform each task, including videos, images, and checklists. Additionally, it informs you about the required tools and spare and wear parts needed for maintenance.

Using state-of-the-art technology, the Ammann Maintenance Manager 4.0 utilizes production data, operation data, periodic cycles, and sensor data to provide precise recommendations on what needs to be done, when, and how.

The Ammann Plant Guard 4.0 is the perfect extension to the as1 Control System, enhancing production performance and optimizing operational efficiency.

It is available for new plants and can also be integrated into existing ones.

PLANT GUARD MODULE BUNDLES

Your new plant will be delivered with the Plant Guard basics. Choose additional solutions* to add even more value to your business.

	BASIC	ADVANCED	EXPERT
ACCESS TO MYAMMANN *Online customer portal. Single point of information.*	✓	✓	✓
CONDITION MONITORING	Basic IoT plant data	Overall and detailed dashboards with export functionality	Extended insights
MAINTENANCE MANAGER 4.0 *Maintain your plant to optimize the run time and costs.*	✓	+ Complete maintenance plans incl. step-by-step guides	+ Extended analytics, insights and predictive models
ANALYTICS EXPERTISE *Get analytics expertise from an Ammann expert.*	○	○	✓
CUSTOMIZED DASHBOARDS *Access more specifics based on your needs*	○	○	○
TAILORMADE SOLUTIONS *Get in touch with us to find your perfect solution.*	○	○	○

✓ = *available;* ○ = *on demand*

**Some solutions require more than one module. Contact Ammann for a detailed offer.*

MYAMMANN

Spare-parts, real-time plant data, maintenances and many more: All the necessary information accessible on your MyAmmann platform.

At the forefront of innovation in the industrial sector, Ammann is committed to providing the best user experience for our customers. With this goal in mind, we're expanding our services with new online tools designed to simplify and enhance customer operations.

Our focus is on transforming complex and time-consuming tasks into effortless processes, reducing human error and boosting operational efficiency.

Ammann customers can now take advantage of powerful, yet user-friendly online tools:

- **Ammann Spare Parts Catalogue Access & Shop**, personalized to each plant's specific components.
- **Plant Guard Maintenance Manager**, which automatically schedules maintenance based on plant operations and sensor data.
- **Plant Guard Condition Monitoring**, delivering real-time insights and reports to track operations, reduce costs, and enable data-driven decision-making.

HIGHLIGHTS

- Prompt access to plant data;
- Self-user management;
- All you need at one place and 24/7 availabilty;
- Available in seven languages (more to come...).




AMMANN

MAINTENANCE MANAGER 4.0

CORE VALUES

The Maintenance Management tool for asphalt and concrete producers.

Breakdowns can disrupt operations and result in significant costs. Therefore maintenance is crucial, but efficiently managing it at one or more plants can be challenging.

Plant Guard Maintenance Manager was developed to overcome that challenge. It is an easy-to-use yet powerful solution tailored to asphalt and concrete producers.

FUNCTIONALITY	BASIC	ADVANCED	EXPERT
FULL MAINTENANCE PLAN *For periodic maintenance tasks*	✓	✓	✓
STEP–BY–STEP GUIDES *For maintenance tasks*	–	✓	✓
COMPLETE MAINTENANCE PLANS *For production- and operation-based triggers*	–	✓	✓
TRACKING *For costs and operation*	–	✓	✓
MAINTENANCE SCHEDULING *Predictive maintenance and anomaly detection based on Artificial Intelligence (AI)*	–	–	✓
ADDITIONAL SENSOR PACKAGES	–	–	✓

HIGHLIGHTS

- Outsource the maintenance planning and logging to a single online tool.
- Track and analyze your costs, consumptions, downtimes and more.
- Further secure your assets against failures with machine learning and sensors that will prevent breakdowns.



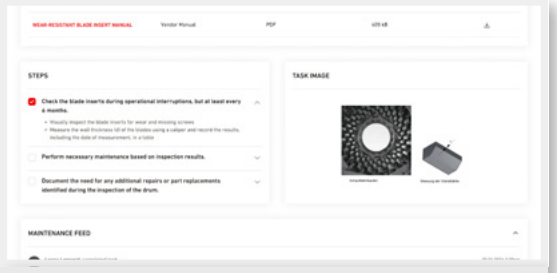
Insight Dashboard

Provides past performance data and serves as a valuable tool for planning and optimising resources. A built-in forecasting tool suggests when to shut down for maintenance.



Maintenance Scheduler

This tool is equipped with a trigger system that automatically assesses the maintenance schedule from your plant production. The scheduling parameters are preloaded from us, for you to be operative immediately – but everything is adjustable.



Tasks Guides

There is no need to search for manuals or spreadsheets. Simply open the appropriate task guide, take care of the maintenance and mark it as done.



CORE VALUES

All main features you need in one solution:

Tailored Datasets

Your Maintenance Manager 4.0 comes preloaded with each plant's task list.

Automatic scheduling

Tasks are scheduled depending your assets production regime.

Effortless Management

It is easy to assign, modify and reschedule tasks.

Coordination

Automatic notifications keep all informed.

Information

Immediate access to the technical documentation and Maintenance logging and reporting.

Insights

Improve your maintenance operations, compare equipment longevities and forecast costs.

CONDITION MONITORING

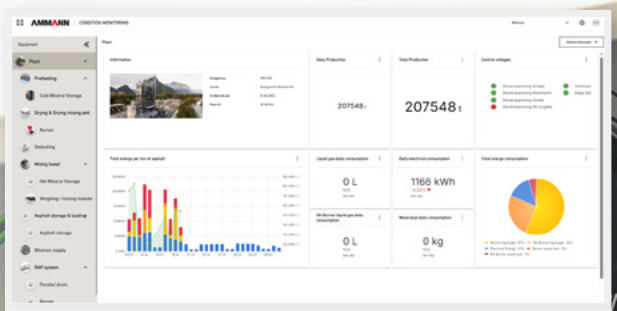
Real-time data and reports on your plants and their components, anywhere.

Plant Guard Condition Monitoring offers a comprehensive view of your plant's activities, consumption, and production, helping you identify opportunities for optimisation and cost reduction.

Engineered to improve your operations, it provides the tools you need to review performance, access historical reports, and gain precise insights into every component of your plant.

With its powerful integrated analytics, Plant Guard Condition Monitoring drives improved energy efficiency, enhances the control and optimisation of asphalt and concrete production, and empowers data-driven decision-making for more effective consulting.

FUNCTIONALITY	BASIC	ADVANCED	EXPERT
BASIC DASHBOARDS	✓	✓	✓
OVERALL AND DETAILED DASHBOARDS *Per plant and plant components*	–	✓	✓
DATA EXPORT	–	✓	✓
ANALYTICS, INSIGHTS AND PREDICTION MODELS	–	–	✓
DATA ANALYTICS *Recommendation and data interpretation consultation* *Support by Ammann expert (once a year)*	–	–	✓



Key plant figures

Monitor your plant's performance at a glance with the intuitive dashboard. Get real-time insights into key metrics.

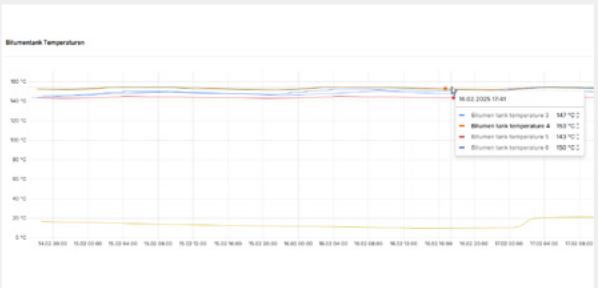


Detailed views

Receive high-level metrics and also dive into details for every component.

HIGHLIGHTS

- Role based visualisation ensures the right data is displayed to the right people.
- From reports across plants and time frames to detail activities over short timeframes – Condition Monitoring gives a comprehensive picture of your operations.
- Condition Monitoring establishes the basis for leveraging predictive models and making data-driven decisions.



Interactive charts

Zoom in and out to get the information you need.



Export data

Download and analyse key information for improved performance.

RETROFITS AND DIGITAL PRODUCTS

In case you plan a Retrofit, you can easily include the Plant Guard, or you can update your plant to be ready-to-use this module.

In many cases, technically overhauled plant control systems fail to meet current requirements in terms of spare parts availability, reliability, operating convenience and traceability of the manufactured products. Ammann understands precise customer requirements. Whether it be a partial or complete renewal of the entire process control system, Ammann offers a comprehensive broad range of retrofitting packages. The large number of retrofit projects already undertaken on Ammann plants as well as thirdparty manufacturers serves to underline our expertise. Short retrofitting times, maximum adaptability and modular orientated-expansion options are core characteristics of the future Ammann as1 retrofitting concept.

Individual retrofit solution – right solution for every need

Ammann offers solutions for its own plants and plants from third-party manufacturers for retrofitting to modern Ammann as1 control systems.

Get in contact with us to find the right solution for you.

HIGHLIGHTS

- The adaptability and modular format of the as1 makes it an outstanding choice for retrofitting all types of asphalt mixing plants;
- Comprehensive and fully graphical visualisation;
- Simple, easily learned and modern operation with mouse and keyboard;
- Qualitatively optimal batch production thanks to detailed process technology;
- Numerous statistics and evaluations for quality assurance;
- Remote maintenance via internet;
- Efficient service and support;
- Flexible and needs-related expansion possible at any time;
- Rapid retrofitting times thanks to pre-engineered interfaces.



RETROFITTING KITS FROM AMMANN FOR ITS OWN AND OTHER BRANDS

Weighing / mixing retrofitting kits

This retrofitting kit covers the automation for the area of weighing / mixing. Plant operators can economically equip their plants to fulfill requirements in the areas of production, statistics and quality assurance and are thereby ready for the future.

Complete retrofits

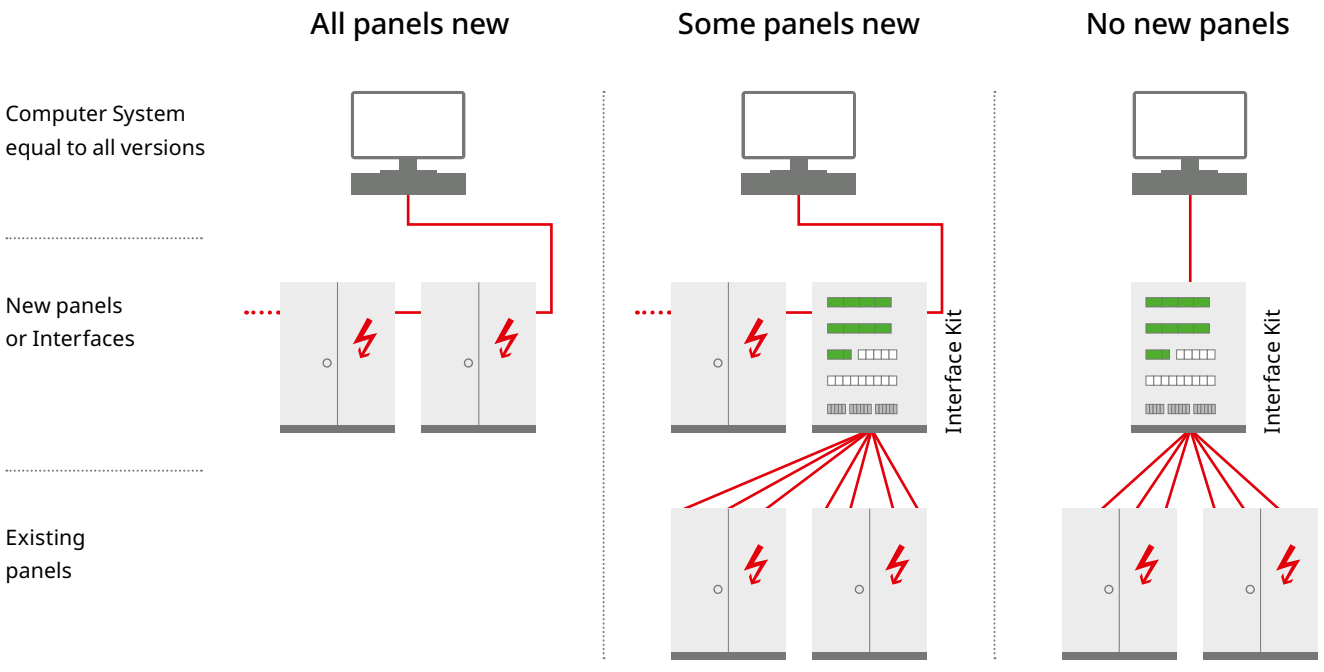
The adaptability and modularity of the as1 means that a suitable solution can be realised for any plant. Either a central interface cabinet or decentralised interface modules are used for installation in the existing switching cabinets, depending on the concept of the existing control system.

Ammann AS2000 / AS2000plus / SIMthesis retrofitting kit

Ammann AS2000, AS2000plus and SIMthesis control systems can be retrofitted quickly by means of minor adaptations to the fieldbus system and exchanging the computing environment. The smart solution for progressive operators.

Retrofit Variants

The reconstruction of the as1 control system retrofit kit can be done in three different ways. The size of the retrofit is governed by the condition of the existing switch gear panel.



TECHNICAL SERVICES

HOTLINE AND SUPPORT

Plant availability assured

Ammann experts are ready for you in emergency situations 24 hours a day, seven days a week. The help line team is highly trained and experienced. Representatives can talk you through the challenges – in many different languages. Remote connection to your control system or mobile camera sharing technology allow us to provide our customers the best quality support, that will facilitate the troubleshooting and as a result, reduce the downtime.

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. Our hotline-experts can guide and help you with troubleshooting or maintenance of your Ammann Plant. Modern means of communication and built-in diagnostic tools increase the availability of the plant and reduce the need for costly on-site servicing.

INTERNATIONAL HOTLINE

- Experienced Hotline staff and use of modern communication media reduces response time and therefore plant downtime;
- The Hotline is available 24h a day and 7 days a week for emergencies;
- You talk to experts who know your problems and have solutions ready;
- Our Hotline staff speaks several languages;
- The Ammann Hotline staff can connect to your Ammann plant control system via remote access for diagnosis and support;
- Our remote mobile camera sharing solution helps to see the problem through the eyes of our customers.



TRAINING

GET THE MOST OUT OF YOUR PLANT

Fulfil your plant's potential with training

Your plant features components engineered for productivity and technology that can deliver benefits unheard of just a few years ago. Yet those components and that technology are only as good as the operator using them. How can you help operators make the most of the tools at their disposal? The answer is training.

Ammann experts can customise a training program for your needs and work with operators and managers directly on your plant. The advantages include hands-on experience with your equipment and the ability to involve more of your staff than would likely be sent to a regional training center.

In addition, we offer online training specific for your plant and your staff using remote connection to your control system or with a plant control system on our simulator. Please contact your Ammann representative for more information.

WORLDWIDE TRAINING CENTRES

Ammann has more than 10 regional training centre locations around the world. Key training themes connect them all.

- A good balance. The centres combine a traditional classroom setting with hands-on experience, including the availability of plant components for maintenance lessons;
- Experiment without consequences. The as1 control system simulation provides operators with realistic scenarios without running the risk of wasting material or causing plant downtime. Operators can experiment and learn from their mistakes – without costly consequences to your operations.
- Learn from peers. Operators from other facilities attend the training. Participants say the conversations with their peers – and learning how they overcome challenges – is another key benefit;
- Learn in your language. Lessons are taught in many languages, ensuring your team understands key terms and lessons and makes the most of your investment.

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.



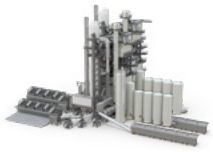
200+ AGENCIES & SALES PARTNERS

20 REGIONAL SALES OFFICES & SUBSIDIARIES

14 MANUFACTURING FACILITIES & CENTER OF COMPETENCE

13 WAREHOUSES

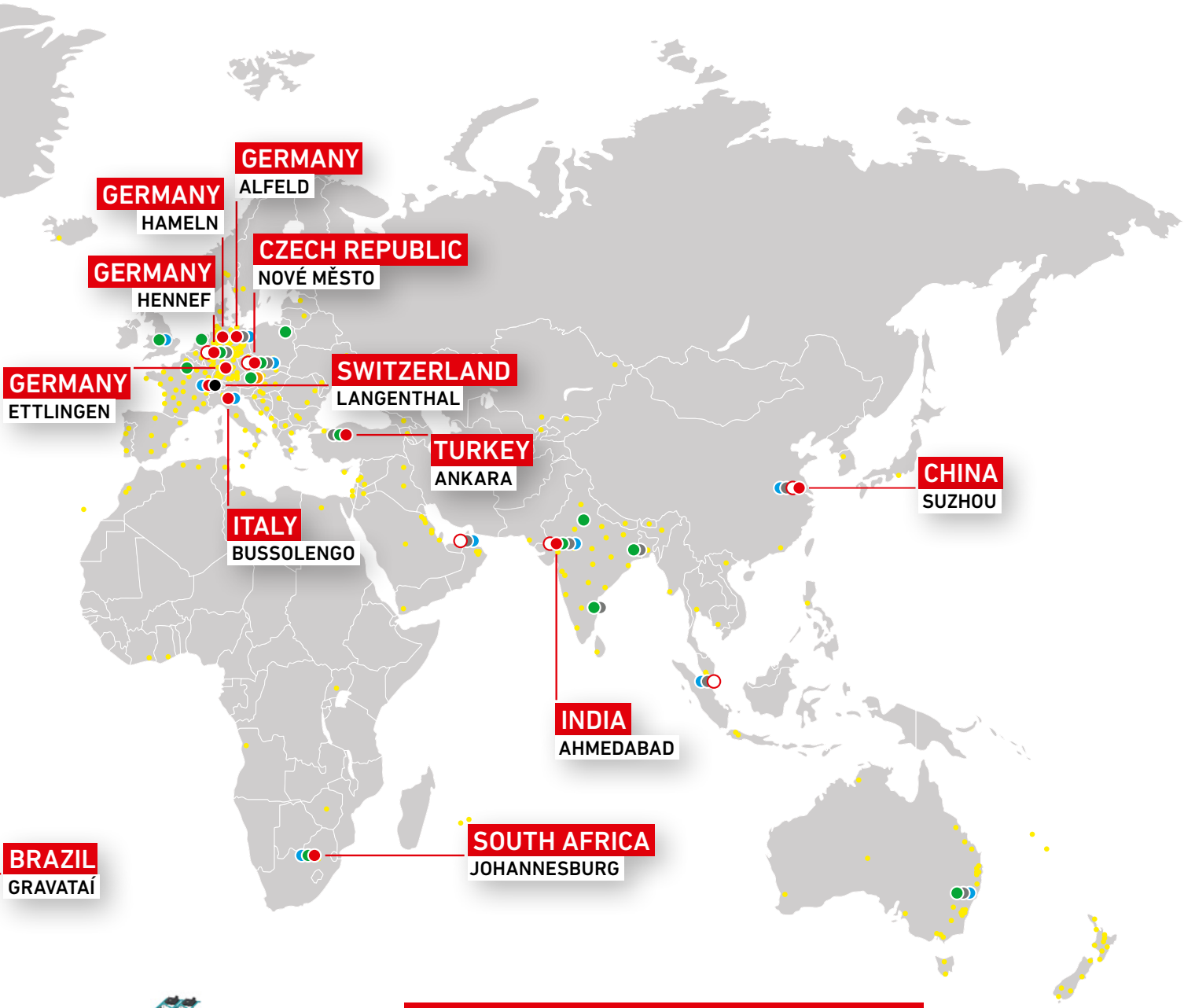
12 TRAINING CENTERS



PLANTS

ASPHALT-MIXING PLANTS

CONCRETE-MIXING PLANTS





MACHINES

LIGHT COMPACTION

SOIL & ASPHALT COMPACTION

ASPHALT PAVERS

GLOBAL DISTRIBUTION & SERVICE NETWORK

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

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