

AUTOMATION AND SOFTWARE SOLUTIONS

AS1 CONTROL SYSTEM

CONTROL AND MANAGEMENT SYSTEMS
CONCRETE MIXING PLANTS





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

Thanks to the Ethernet-based fieldbus system, your plant can easily cope with the challenges of the digital era. The system integrates field devices on the plant into a network, ensuring reliable and robust exchange of all types of information.

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.

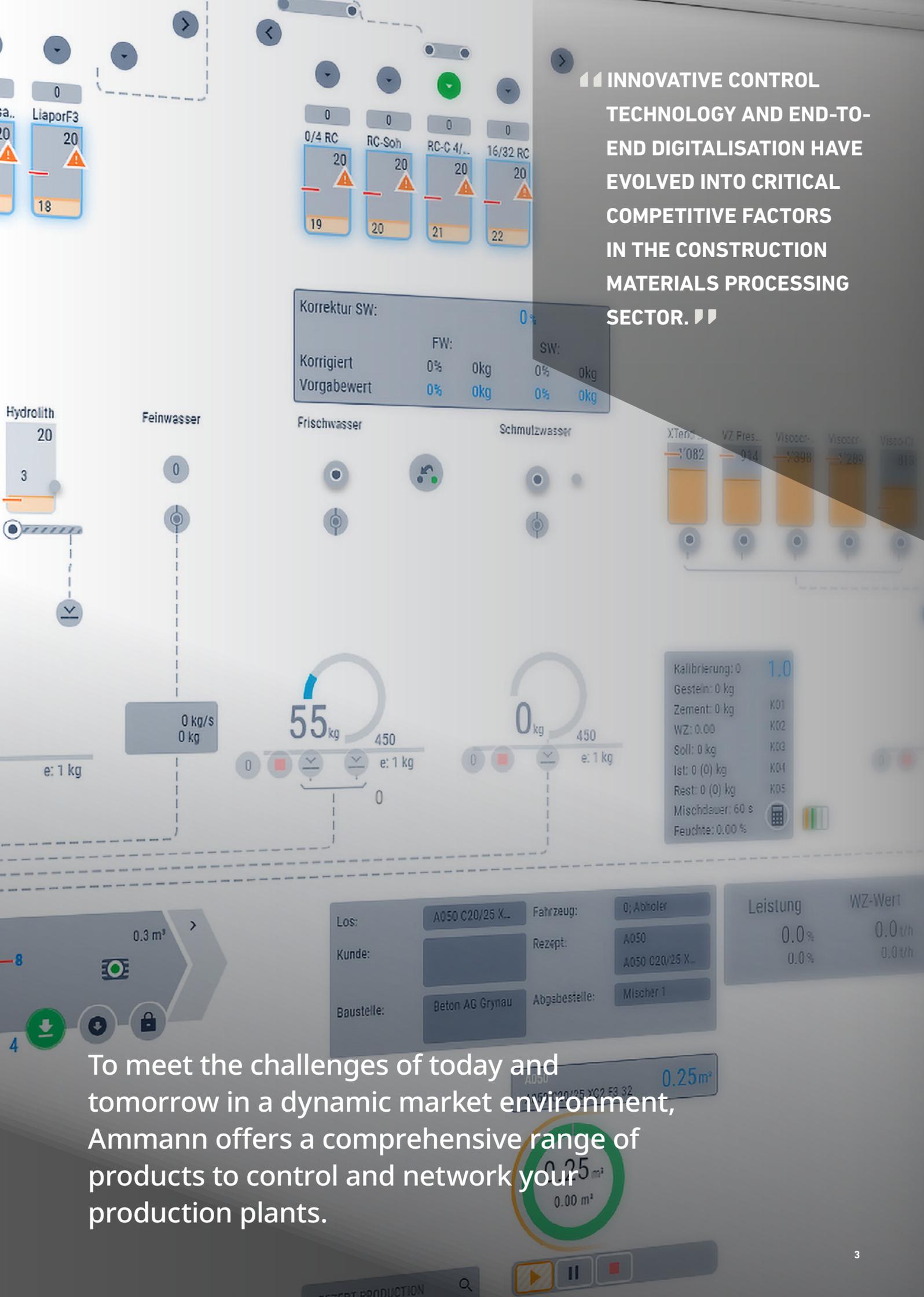
Ammann's knowledgeable customer service team staffs the hotline, which can be called for fault diagnosis or maintenance at any time. Modern telecommunications media increase the availability of the plant and reduce the need for costly on-site servicing.

HIGHLIGHTS

- Intuitive, safe and reliable plant operation;
- Quick and flexible order processing on the plant;
- Consistently high mix quality thanks to highly automated processes;
- Designed for reliable operation in harsh environments;
- Prepared for the digital future;
- Professional hotline and support organisation ready to assist across the globe.



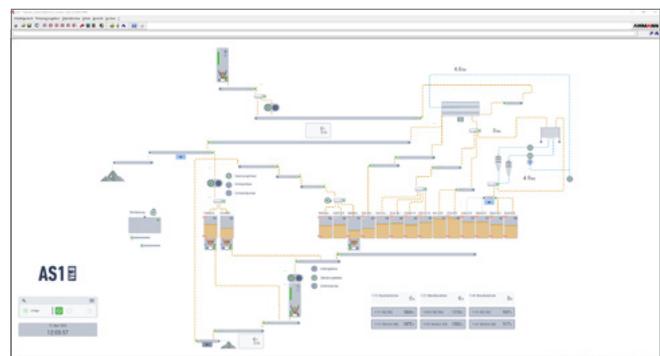
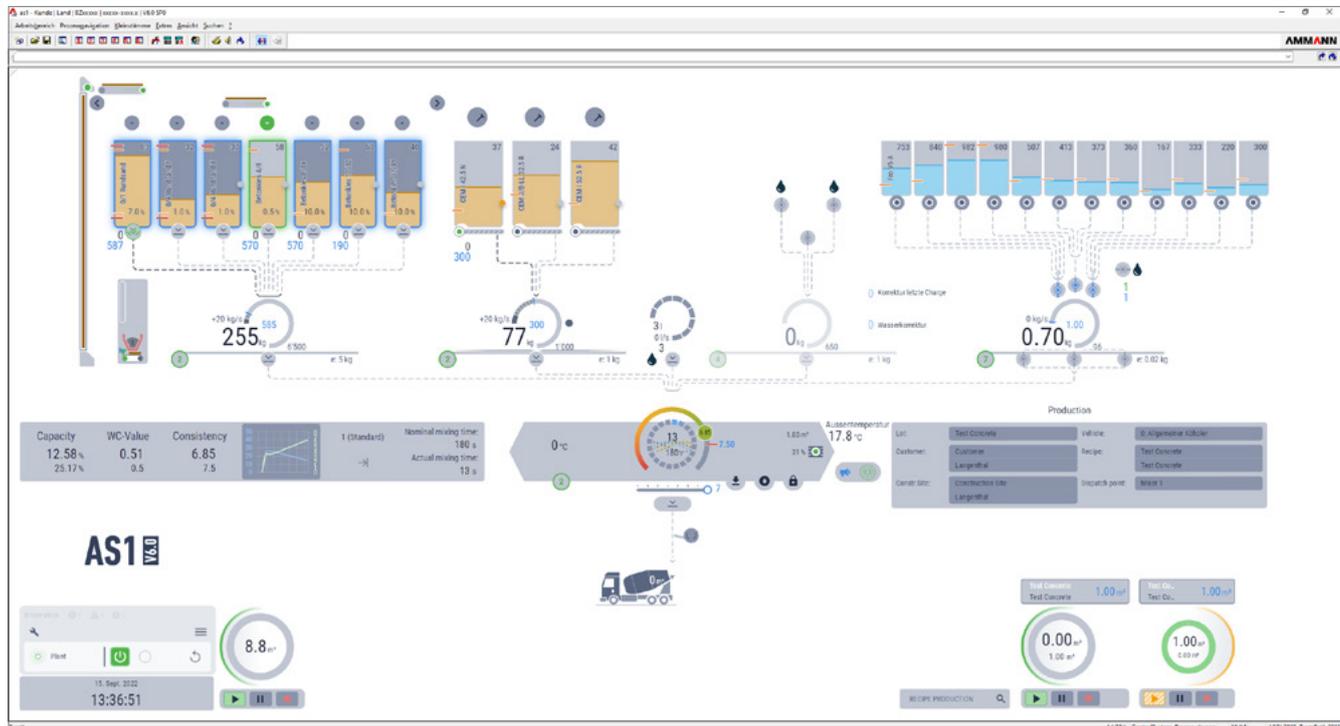
INNOVATIVE CONTROL TECHNOLOGY AND END-TO-END DIGITALISATION HAVE EVOLVED INTO CRITICAL COMPETITIVE FACTORS IN THE CONSTRUCTION MATERIALS PROCESSING SECTOR.



To meet the challenges of today and tomorrow in a dynamic market environment, Ammann offers a comprehensive range of products to control and network your production plants.

AS1 CONTROL SYSTEM

For concrete, gravel and dosing plants



HIGHLIGHTS

- **Clear overview:** State-of-the-art user guidance for simple and safe system operation;
- **Precise dosing:** dynamic self-learning overrun correction function;
- **Highly accurate W/C:** automatic consistency control;
- **Maximum use of recycled water:** dynamic recycled water addition;
- **Flexibility:** each recipe is individually controlled according to one of the EN consistency standards or the Ammann consistency standard;
- **All-rounder:** the as1 can also control gravel, ballast and dosing plants.

The No-Worries package

Fast service for customers

- Efficient selection, search and filter functions;
- Missing master data can be entered directly in the ordering process;
- Comprehensive handling of delivery notes.

Safe plant handling

- Well-structured, logical plant visualisation;
- Immediate overview of the current operating status at all times;
- Many useful functionalities to make day-to-day work easier.

Consistently high mix quality

- Ongoing humidity measurement throughout the dosing process;
- Automatic overrun correction for dosing processes;
- Automatic consistency control with recipe-specific control parameters.

Standards supported

- Meets the requirements as per EN 206 and DIN 1045;
- Available in a version that can be calibrated, compliant with OIML R51-1 (automatic balances);
- Consistency values as per EN standard, e.g. spread, compaction, slump and slump flow parameters, as well as the Ammann consistency standard.

Onboard features to adjust and optimise the plant

- Calibration assistant for belt weighing units and weigh hoppers;
- Calibration assistant for various humidity measuring sensors;
- Extensive parameterisation options to optimise the plant.

Diagnostic tools for trouble shooting

- Integrated tools for fieldbus diagnosis;
- Recording tool for digital and analogue signals;
- Professional 24/7 hotline support via integrated remote maintenance access.

The basis for the digital future

- Electronic data exchange with customer's ERP systems;
- Configurable PlantX data interface (REST-based);
- Software service for data exchange with cloud-based Q Point services.

Comprehensive data storage and management

- Detailed logging and a full-scale statistics package;
- Integrated material management tool;
- Structured browser-based document archive.

Cutting-edge technology

- Microsoft Windows 10 IoT operating system;
- Microsoft SQL database;
- Real-time subsystem;
- Ethernet-based Profinet fieldbus system.



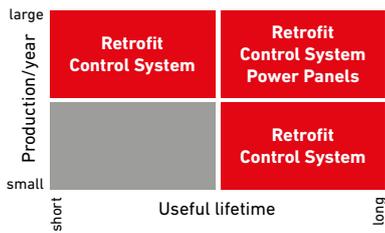
AS1 RETROFIT CONTROLS

Ready for the digital future

THERE ARE MANY REASONS FOR A CONTROL SYSTEM RETROFIT!

In many cases, technically outdated plant controls no longer meet today's requirements for the availability of spare parts, operational reliability and comfort, or traceability of manufactured products.

ECONOMIC DECISION CRITERIA



HIGHLIGHTS

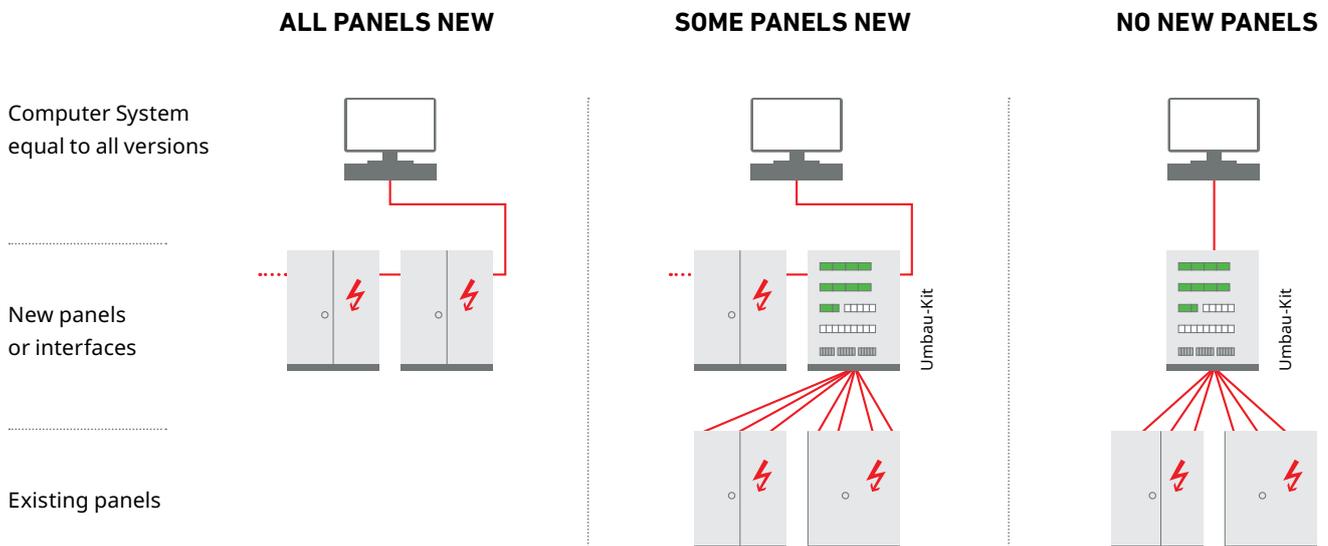
- Modular as1 conversion kits for proprietary plants and third-party products;
- Short conversion times thanks to prefabricated interfaces;
- Flexible, needs-oriented extensions possible at any time;
- Efficient service and support.

TECHNICAL DECISION CRITERIA

Functional scope Spare parts availability Support	insufficient	➔	RETROFIT
	sufficient		
Age of the control system	> 8 years	➔	RETROFIT
	< 8 years		
Age of the power panels	> 25 years	➔	RETROFIT
	< 25 years		



POSSIBLE CONVERSION OPTIONS

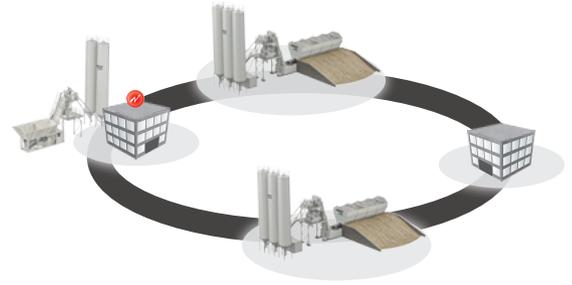


as1 plant network / central disposition

Plan centrally, act locally

With the as1 plant network, synergies can be exploited by networking the sites. The system offers maximum flexibility thanks to the possibility of entering and processing orders both centrally and locally. Master data maintenance is considerably simplified and the effort required for post-processing is minimized.

Ammann relies on a sophisticated autonomy concept that automatically and continuously replicates the current data with all locations. This ensures that work can continue locally without restrictions even if the communication lines are interrupted.



as1 add-on modules

Get more out of your plant!

AS1 ELECTRONIC SIGNATURE

Another step towards the paperless plant, with potential for saving costs in the back office.

AS1 SAMPLE PLANNING

Tested quality according to EN 206.

AS1 DOCUMENT ARCHIVE

Protocols, reports and key statistics are automatically converted into PDF files and stored in a structured way.

AS1 SMM MESSAGING MODULE

Receive important information of the plant via e-mail in your inbox.

AS1 INTEGRATED MAINTENANCE MANAGEMENT

Provides support for planning necessary maintenance work.

AS1 EXCEL ADD-IN

Essential for detailed evaluations of as1 data in Excel.

AS1 TRAFFIC CONTROL

Controls the loading sequence on the plant.

AS1 TRUCK WEIGHING SYSTEM

Can be integrated into the order processing module, based on the same master data.

AS1 DATA INTERFACES

Flexibly configurable interfaces for a wide range of different requirements.

as1 PIP (Plant Information Point)

Stay in touch with the production plant – anytime, anywhere

With as1 PIP, you always have access to information about your plant, even while on the road on your cell phone. Important daily data, the plant status or the batch records can be viewed at any time and from anywhere via the Internet.

CURRENT PRODUCTION INFORMATION

KEY FIGURES

PLANT STATUS

TREND DATA

BATCH PROTOCOLS





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

