

AUTOMATION AND SOFTWARE SOLUTIONS

# AS1 CONTROL SYSTEM

CONTROL AND MANAGEMENT SYSTEMS  
CONCRETE MIXING PLANTS



# POWERFUL, USER-SAFE AND PROVEN AROUND THE WORLD

The as1 concrete control and order processing system is based on the powerful as1 system platform, designed to cope with the challenges of the future. It offers high connectivity and is an essential prerequisite for end-to-end process digitalisation. The as1 industrial hardware has been designed specifically for use in tough conditions, and it guarantees maximum system availability. Detailed implementation of process technology ensures mix of high quality – and satisfied customers.

## FIELDBUS SYSTEM WITH DIGITAL ADDED VALUE

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.



## ELECTRICS DESIGNED FOR OPERATION IN HARSH CONDITIONS AROUND THE CLOCK

The power panels have to withstand extreme stress around the clock. Ammann only makes use of tried-and-tested quality components from renowned manufacturers that are available worldwide.

## HOTLINE AND SUPPORT PLANT AVAILABILITY GUARANTEED

Malfunctions can be located quickly by the own specialists, with the help of the efficient as1 diagnostic tools. Ammann's professional hotline can access the plant for remote maintenance at any time, for assistance with fault diagnosis or for servicing purposes – thus saving costly interventions on site.

### 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

Gold  
Microsoft Partner

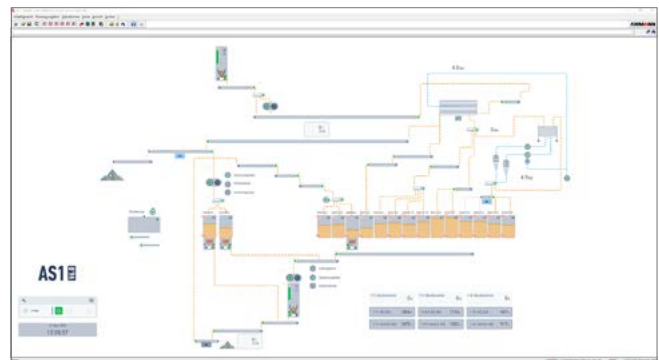
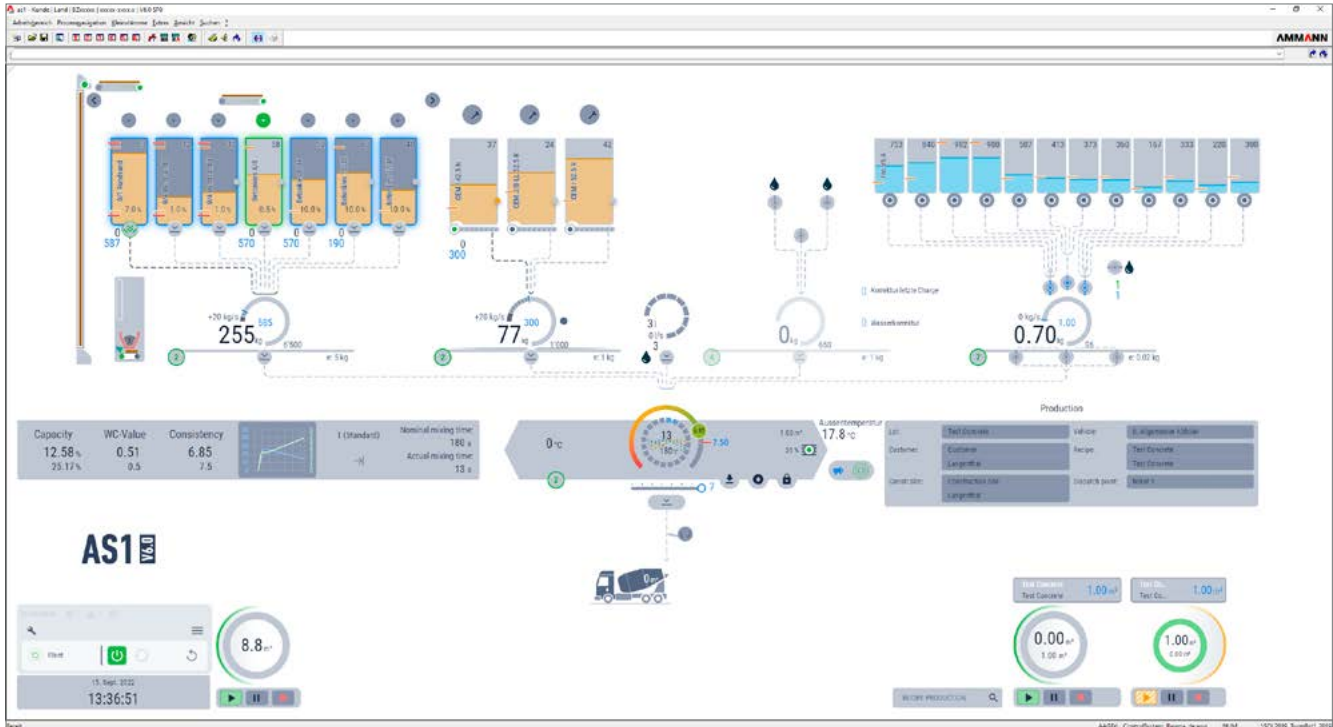


INNOVATIVE CONTROL TECHNOLOGY  
AND END-TO-END DIGITALISATION HAVE  
EVOLVED INTO CRITICAL COMPETITIVE  
FACTORS IN THE CONSTRUCTION  
MATERIALS PROCESSING SECTOR.

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



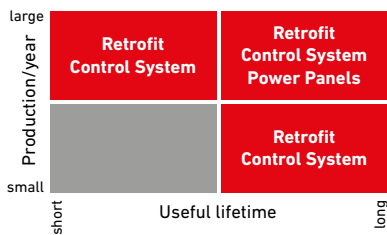
# AS1 RETROFIT CONTROLS

## 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

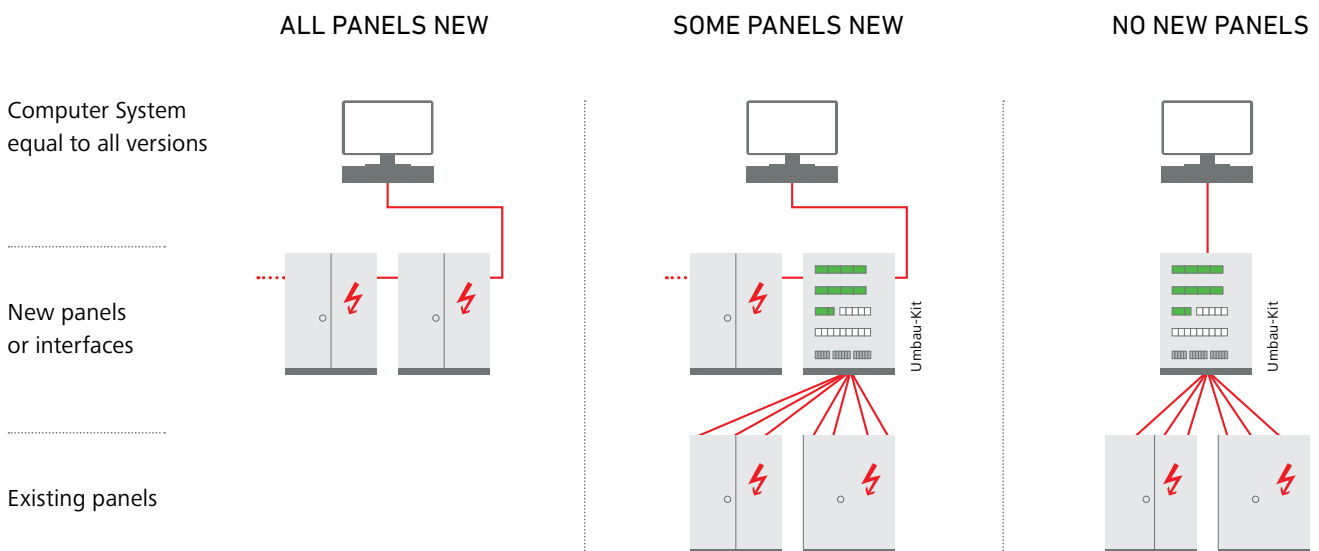
- Modular as1 conversion kits for proprietary plants and third-party products
- Short conversion times thanks to prefabricated interfaces
- Flexible, needs-oriented extensions possible at any time
- Efficient service and support

### 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

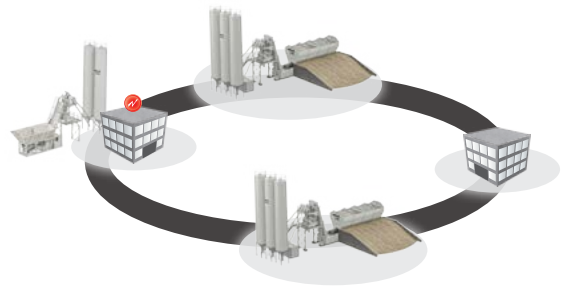


# AS1 PLANT NETWORK / CENTRAL DISPOSITION

## 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](http://www.ammann.com)

