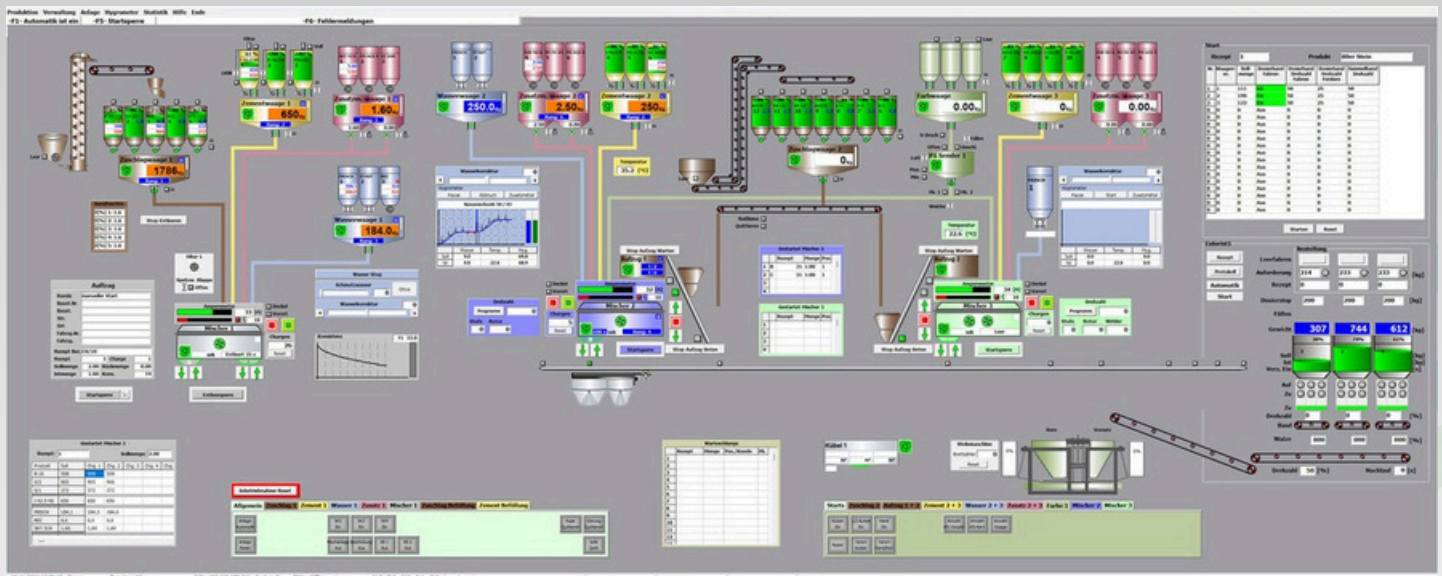


Process control system BWD



The **BWD process control system** enables manual and automatic control of concrete mixing plant processes. Its modular design creates a plant control system that is precisely tailored to your requirements.

Only the hardware and software modules necessary for the production process to be controlled are put together.

The BWD process control system consists of:

- 1 Siemens industrial PC
- 1 BWD management and process control software
- 1 Windows operating system
- 1 SQL database
- 1 Siemens PLC with fieldbus technology (Profinet/Profibus)
- 1 software for remote maintenance



The screenshot displays two main windows from the BWD process control system. The left window, titled 'Rezeptverwaltung Werkbeton', shows a recipe management interface with fields for recipe number, sort number, creation date, and last change. It includes tabs for 'Komponentenübersicht', 'Zuschlag', 'Bindemittel', 'Zusatzmittel', 'Wasser', and 'Farbe'. The right window, titled 'Rezeptverwaltung Werkbeton', shows a detailed material calculation table with columns for material, quantity, and various parameters. The table lists materials like 'Zuschlag', 'Bindemittel', 'Zusatzmittel', 'Wasser', and 'Farbe' with their respective quantities and costs. The bottom of the interface features a 'Hygrometer Protokoll' and 'Hygrometer Kurve' section.

The **BWD process control system** is responsible for managing all master data such as recipes, articles, raw materials, statistics etc. Clear menus and self-explanatory buttons provide the user with maximum ease of use and a very good overview. Even basic knowledge of the Microsoft operating system Windows is sufficient to get to grips with the BWD quickly and easily.

All lists and statistics can be accessed with various sorting orders and displayed over any time period. All statistics are presented in tabular or graphical format.

BWD features a data export module that allows you to export all statistics. Furthermore, any amount of data can be recorded. Data size is irrelevant; even with increasing data volumes, processing speed remains unchanged. The data can be transferred to a central invoicing/ERP system via USB stick or over a network. It can then be individually reviewed or processed.

Database SQL Server/ client-server application / standalone backup system

Data export Data export in ASCII or Excel format for later data processing with Excel (*.csv)

The Recovery Set is used to easily restore all Bikotronic software packages and databases. The recovery can be easily performed by the customer.

Remote maintenance

All functions of the system can be tested, adopted and changed via this connection.

Spare parts availability

The computers of the BWD system are based on standard industrial PCs.

This ensures reliable spare parts procurement through standardized PC components.

Statistics

- All statistics can be displayed in freely selectable time windows.
- Consumption statistics with management of material disposals set and actual with difference calculation
- Recipe statistics, article statistics: listing by produced articles with consumption of gravel, cement, aggregates, color and water for each article
- Production statistics with output of all components contained in the recipe with breakdown set/actual and difference calculation
- Statistics of the mixing protocols for each individual batch
- Daily production
- All operations on the system are recorded and written to a log file.
- These can be viewed on the screen or printed out.

Password-protected areas

Each menu item can be password protected: no access, read only, read and write access

Additional features

Post-processing of delivery notes and protocol printouts from the database, on external data media or storage on the network server Interfaces to other software systems are no problem Data export in ASCII or Excel format for later data processing with Excel SQL Server

Article management

- Selection of multiple recipe numbers for one article
- Start parameters for production and bucket conveyor

Recipes with recipe numbers, recipe names, components, setpoints, hygrometer control etc. are stored in the **recipe management**.

Form management

- Input of forms, including those of third-party plants
- Cycles statistics for each form
- Mold repair management
- Mold statistics with article management
- Connection to the machine

Production

The process control software controls the mixing process in manual and automatic mode. The mixing plant is represented schematically. All relevant operating processes and plant statuses, as well as precise fault messages in plain text with the time and date are displayed graphically.

- Recipe-controlled production process
- Display of all scales on the screen
- Adjusting water correction and fresh/recycled water mixing ratio via the mouse
- Representation of the process diagram
- Work order management with consumption statistics
- Assignment table for Colormix articles
- Start by recipe number, article or unloading position
- Continuous automatic follow-up calculation
- Water stop function with a mouse click
- Quantity change during production
- Silo change during ongoing dosing
- Double filling protection for mixers
- Control times of the system can be individually adjusted.
- Easy operation of the system
- Output of fault messages
- Operating hour counter for all drives
- Maintenance module

Every motor, every valve, and every limit switch can be monitored. When a predefined condition is reached, a plain-text message appears and is saved in a file for later processing.

Options

The **BT-7000 water dosing computer** quickly and accurately determines the concrete moisture content in the mixer. It calculates and doses the required water, thus forming the basis for consistently optimal concrete quality.



The **BTS-WIN sand moisture meter** continuously measures moisture during the dosing process. Subsequently, the sand/water adjustment is performed during the dosing process. The moisture readings are displayed in the corresponding silo.

