### SIEMENS



# BRAUMAT® Beer simply brewed better

siemens.com/braumat

### Exciting solutions. For the demands of the brewing industry.

Everyone knows the beer ingredients barley, hops, and malt. But the beer market has continued to develop since Germany's beer standards were set in 1516, thanks to new types of grain, cultured yeasts, and hop flavors that delight beer drinkers. This has implications for master brewers and breweries in general: They need to adapt fast to the market while still consistently maintaining high quality, complying with international standards, and protecting themselves from attacks on their systems.

BRAUMAT builds on more than 40 years of experience to provide answers to these demands. The system is already setting the standard at research centers and among brewers worldwide. With this new version of the proven, future-oriented brewery automation system of choice, BRAUMAT goes a step further: Now it's even safer and more flexible and efficient. That's helped in part at the control level by the SIMATIC S7-1500, which is now fully supported in addition to the SIMATIC S7-400. So you benefit from efficient engineering in the TIA Portal and many new process control functions that fully support the brewing process – including combined operation with the SIMATIC S7-400. Safe, quick, flexible – and a safe investment for the long term.

## BRAUMAT® Highlights



## Forward-looking investment

BRAUMAT supports the latest controller technology with SIMATIC S7-1500 and also combined operation using the SIMATIC S7-400 and S7-1500. This means that you can upgrade in stages and enjoy a secure investment.



### Easy handling

BRAUMAT is easy to master. Quick and easy engineering, training courses, support, and efficient configuration and ordering using the TIA Selection Tool all help make your project easier.





### Total transparency

Sophisticated functions and options for batch and quality reports and KPI calculations give you maximum transparency in your processes and production.

### Perfect scalability

The system is fully scalable, making it perfect for both small craft breweries and large operations.

### Fresh design. For intuitive control.

What's most impressive about BRAUMAT is its intuitive operation and its powerful, ISA-S88.01compliant graphic recipe system. It's easy-to-follow graphic display lets you track the progress of production in close detail and control it at all times. You can check the status of all production areas, vessels, system sections, batch information, parameters for each stage, and much more whenever you want. If you need to adjust anything in the recipe – volumes, temperatures, or standing times – you can do it easily using the recipe editor. The system not only offers you an overview of your current status, it also gives you a look back at what's gone before: The newly incorporated Replay Mode records all relevant process data and displays it in a process image review. This means that you can rapidly identify and rectify any errors - either right on-site or via remote maintenance. Operators can also get additional support using the Route Control option, which SIMATIC S7-1500 now also fully supports. Route Control lets you transfer material fully automatically between the storage cellar and brewhouse. It works like a navigation system, recognizing blockages in the complex network of pipelines and selecting an alternative route if necessary. That saves time and energy, and makes production routes transparent.





### Crystal-clear analysis. For consistent high beer quality.

BRAUMAT provides new batch and cellar logs with a simple selection of process parameters. The BRAUMAT reporting system is Excel-based and contains previously supplied parameter lists for the brewhouse, cold block, and filtration brewing areas. The new version and the WinCC add-on PM-QUALITY\* now provide higher-level reporting using SQL Express. For long-term archiving, SQL Server 2016 is also required.

For the first time, the PM-QUALITY add-on also supports graphic calculation methods – for example, to determine key performance indicators (KPIs) – which makes it easy to show important factors like downtime and productivity. And by using the new batch reports in conjunction with PM-QUALITY, brewers can create ad-hoc reports themselves while the system is running. Your benefit: easy report parameterization without having to rely on programming by IT specialists.

PM-QUALITY reports can also be uploaded to the MindSphere cloud using the PM-MINDCONNECT option. The free PM-REPORT BROWSER MindSphere app gives you immediate read access to these reports at any time, anywhere in the world.



#### Your benefits:

- Process optimization through direct analysis and evaluation
- Rapid creation of ad-hoc reports with parameters flexibly compiled on the fly
- Tracking and tracing with automated change logging
- PM-QUALITY reports available in Mindsphere at any time, anywhere in the world

\*PM-QUALITY, PM-LOGON and PM-MINDCONNECT are some of the PM add-ons from the Siemens AG WinCC Competence Center in Mannheim.

### A fine mixture. For consistently good taste.



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With the new version of BRAUMAT, dosing and mixing are more efficient and exact than ever before: Warehouse management is integrated into the recipe system along with dosage management. Mixing processes are automatic: The system automatically adapts recipes to warehouse assignment and quantity specifications. The smart SIWAREX weighing technology is also incorporated into the recipe system, providing fully automatic, highly accurate weighing of single and multiple components, which can be combined with various parameters like coarse flows, fine flows, filter grades, and tare settings.

### Your benefits:

- Precise dosing means you can accurately reproduce tastes and reduce costs
- Automated weighing means faster production time
- Efficient, plant-wide engineering with no need for downtime

## Appetizing digital solutions. For the brewery of the future.

Digitalization will also lead to changes in the brewing industry. As a traditional brewer, you'll be wondering how you can seamlessly integrate digital solutions into your production systems – and above all, what the benefits are for you. It goes without saying that BRAUMAT can be connected to MES/MOM and higher-level ERP systems, which gives you the foundation for digitally analyzing and evaluating your plant data.

Siemens adopts a comprehensive approach with its Digital Enterprise. Our digital solutions offer specific benefits that cover the entire value chain. Maximum data transparency and process simulations give you new insights into all production sequences, so you can derive optimization measures and leverage potential savings. The result: You save costs and improve efficiency.



## **BRAUMAT** Overview of benefits

#### Forward-looking investment

- Future-oriented SIMATIC S7-1500 and SIMATIC S7-400 multi-platform, also in combined operation
- Unique upgrade and update function to easily modernize your system with no breaks in production
- Support for all engineering service providers
- World-leading partner program with qualified BRAUMAT experts
- Standard software with defined product lifecycle
- Standard training in just five days

### Easy handling

- ISA 88-compliant graphic recipe/batch control
- Highly user-friendly and intuitive process operation
- Simplified configuration of process parameters
- Easy order management (no MES necessary)
- Optimized material transfers with plausibility checking: for example, CIP
- Automatic dosing and weighing with SIWAREX
- Quick and easy order configuration using the TIA Selection Tool
- Log in using RFID readers with PM-LOGON



#### **Total transparency**

- Integrated ad-hoc reports and flexible batch logs
- Integrated production logs
- Rapid fault analysis thanks to process data recording
- Display and operation across all units
- Reports covering multiple production areas
  with PM-QUALITY
- Expanded long-term archiving

THEFT

• Product documentation available online at any time, free of charge

### **Perfect scalability**

- Everything from the Lean Edition to the Full Version
- Very low-cost entry and easy upgrades to any level
- Integrated safety functions with SIMATIC S7-1516F/1518F
- Optional connection to SIMATIC Opcenter for fully developed MES/MOM solutions
- Connection to the Mindsphere cloud via PM-MindConnect
- Perfect virtualization (with SIVaaS service)

## Refreshing service approach. From an experienced partner.





### Service

Whether you need requirements analyses or services to fix urgent problems, Siemens has a global network that's available 24/7. Unique throughout the world: There's no need for a service contract, and the first hour of consulting using our service hotline is free. You can also get the relevant software documentation and the BRAUMAT manual for free, with online access at any time:

siemens.com/operator-manual-braumat-sistar



### Training

Want to get up to speed fast on the functions and options BRAUMAT offers? We offer a five-day basic training course on all key functions and individual training sessions on request. Talk to us, or find out more online:

siemens.com/training-braumat-sistar siemens.com/trial-download-braumat-sistar





#### PLM

BRAUMAT is a standard Siemens automation technology software product. That means you can rely on a product that complies with all regulations on quality, testing, and documentation.



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