

Trendsetter with Latest Technology

Weldebräu The original design of the “dancing bottle” – the **WeldelustFlasche** (**WeldepleasureBottle**) – is Welde’s brand label. Not only the bottle but also the brewing process of Welde is state-of-the-art. With the installation of **BRAUMAT compact** by **PSA Gesellschaft für Automatisierungs- und Integrationstechnik mbH**, Heidelberg, the Welde brewery is now working with a seamless and efficient process automation which boosts productivity and ensures a return of investment.



Fig. 1: The production site of the Welde Brewery in Plankstadt

Welde started in 1752 as a small brewery in Schwetzingen. Today the production facilities are in Plankstadt (Fig. 1): 40 employees, an annual turnover of 11 Million Euros and 100.000 hectoliters of beer. Besides the lead brand Welde No 1 Premium Pils, Welde Ex and Welde Gold a couple of beers brewed from wheat and trendy mixed drinks such as “WeldeRemix” or “WeldeWeizenGrape” are part of the portfolio. In spite of its longstanding tradition the Welde brewery is a trendsetter. The “dancing” bottle and other new ideas developed and realised since Dr. Hans Spielmann is CEO bring a breath of fresh air into the tradition-steeped brewery culture.

To meet latest needs and propel future innovation in the brewery process, Welde needed a powerful and economical process control system. To achieve this Welde selected **BRAUMAT compact** based on **SIMATIC PCS7**. In addition, other applications such as gravel filter and cooling system have been implemented by **PSA** into the control system. As a result the brewmaster is always in control of the whole process. “Continuity is crucial when brewing beer. People who drink Welde because they like the taste will notice the slightest change.” Commented brewmaster Horst Wandinger whose follower Stephan Dück profits from the many advantages **BRAUMAT compact** offers.

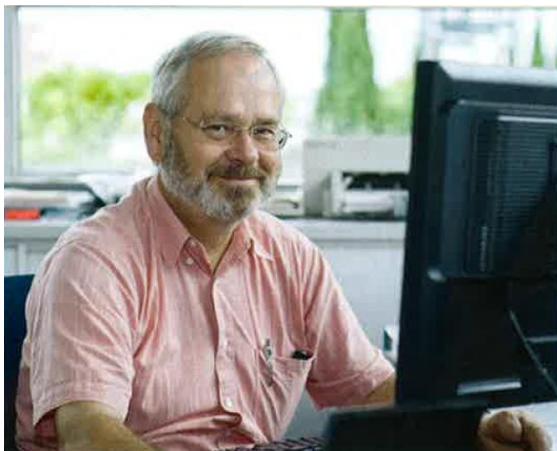


Fig. 2: Graduate brewmaster Horst Wandinger passes a future-oriented work place to his successor.

■ Ensure Product Quality

BRAUMAT compact enables brewmaster Stephan Dück to change the recipes on his own, which is one of the most helpful advantages of the system. This offers a high level of flexibility. Stephan Dück has now the possibility to adapt the brewing process quickly to new products or modified regulations concerning product safety or environmental protection. The recipe management is facilitated by using dual control logic.

The control elements of the first stage are arranged in groups of logical functions and solve related sub-tasks (such as switching a path). The second stage is the plant section formula, which brings functions into a recipe-specific order and combines them with the recipe parameters of the respective beer type. Changes of the recipe sequences can be easily implemented in online mode – recipes become more portable and flexible.

In addition BRAUMAT compact ensures a consistent documentation and traceability. This allows a simple replicability of all processes, a seamless recording of batches and batch tracking via interface. Besides these functions the recording of setpoint and actual values as well as manual interventions and the existence of a reference to the used recipe contribute to a consistently high product quality of the Welde beer.

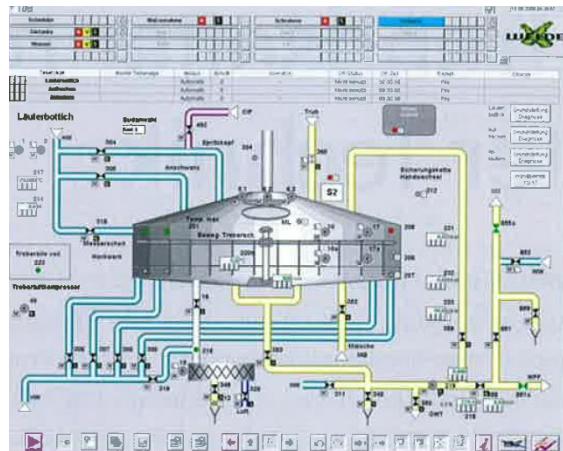


Fig. 3: Process visualization with WinCC

The reliability of the system minimizes breakdowns through consistent and error-free configuration data. If, nevertheless, an error occurs the comprehensive system diagnosis of all components allow swift troubleshooting. In the event of hardware failure, the system is protected by redundant components.

Due to the tested standard software and a uniform programming BRAUMAT compact reduces costs and outlay in engineering. A central engineering system ensures maximum data consistency. In addition, time-saving utilities provide an automatic creation of mass engineering, such as valves for example (Fig. 3).

■ Flexibility and Quality

Many new functions to promote a smooth brewing process and to ensure the high-end quality of all products are now at Welde's disposal. Already during the last 16 years when brewmaster Horst Wandinger was responsible, Welde received various national and international awards (including gold in the Quality Olympics "Monde Selection" 2008 in Brussels for Welde No 1). In the future brewmaster Stephan Dück will be able to control the brewing process even more comfortably to follow up the successes of his predecessor.

Author: Anika Beckenbach, PSA GmbH, Heidelberg, published 2010 in *Brauwelt* magazine.