# Weldebräu – Art of Brewing since 257 Years Combined with Latest Technology

# At a Glance

#### **BACKGROUND**

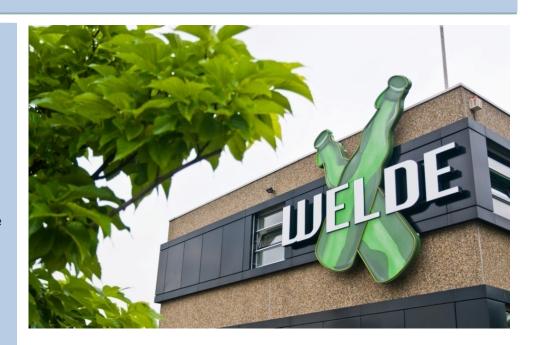
Welde started in 1752 as a small brewery in Schwetzingen. Today the production facilities are in Plankstadt. Welde produces 100.000 hectoliters of beer every year. The 40 employees under the direction of CEO Dr. Hans Spielmann generate an annual turnover of 11 Million Euros. Besides the lead brand Welde No1 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 combination with the "Dancing Bottle" these trend products contribute to the modern image of the brewery. In 1994 Dr. Hans Spielmann established the WeldeKunstpreis (WeldeArtAward). Since a limited number of Welde bottles are labelled with artists' labels every year.

#### **CHALLENGE**

To meet latest needs and propel future innovation in the brewery process, Welde needed a powerful and economical process control system.

### SOLUTION

Process automation using BRAUMAT compact from Siemens based on SIMATIC PCS7. The system unites all important functions and thus is the perfect solution for middle-sized breweries like Welde.



The original and worldwide unique 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 Gesell-schaft 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.

1752 saw the birth of the Welde Brewery in Schwetzingen a small city close to Heidelberg. Starting as a small home brewery, Welde developed into a medium-sized company. Nowadays Welde employs about 40 people and its production site is located in Plankstadt. In spite of its long tradition the Welde Privatbrauerei is truly a trendsetter in the German brewing industry. The "dancing" bottle and other new ideas developed and realised, since Dr. Hans Spielmann is CEO of the company, bring a breath of fresh air into the tradition-steeped brewery culture and complement each other perfectly.

Also the technical equipment of the Welde Brewery is state-of-the-art. Welde selected BRAUMAT compact based on SIMATIC PCS7 for the process automation. 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.

#### **ADVANTAGES**

- · increase in productivity
- · safeguard of investments
- higher flexibility for new products and solutions
- constantly high product quality
- permanently a higher availability
- simple recipe creation and control
- lower engineering efforts



**Brewmaster Horst Wandinger** 

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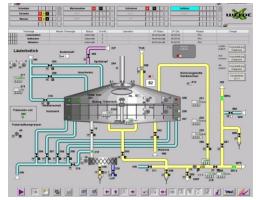
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## **ENSURE PRODUCT QUALITY**

One of the motst helpful advantages of BRAUMAT compact is the function that enables brewmaster Stephan Dück to change recipes on his own. 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 through BRAU-MAT compact is facilitated by using a 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.

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 BRAU-MAT 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.

#### **FLEXIBILITY IN EVERY RESPECT**

BRAUMAT is a good investment, not only a for middle-sized breweries such as Welde. For larger breweries with several brewing facilities SI-MATIC PCS BRAUMAT Library can be installed. This system can be tailored to the specific needs and size of a brewery.

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 Olimpics "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.