

In the United States, 225 million hectoliters of beer are produced every year. That corresponds to the water volume of almost 100 Olympic-sized swimming pools. Craft breweries are already producing one-tenth of that.

The flavor of success

In the United States, small local breweries are in demand. They rely on creating a nostalgic setting – and state-of-the-art technologies. Thanks to double-digit increases in revenue, nationwide they hold a market share of approximately ten percent.

Gleaming steel brew kettles fill the old brick factory building. Pipes are visible everywhere, and the sound of hissing steam fills the room. The history is fascinating: In Stratford, Connecticut, Baird is a company that used to produce machinery, but the good old days are now 50 years in the past. The building stood empty and abandoned for decades, a relic of the company's former industrial heyday. Production started up again about a year ago – this time, of beer, not machinery.

Two Roads Brewing Company is typical of the craft breweries that have recently come into vogue in the United States. These small breweries employ artisan production methods and rely on customer proximity, creative marketing ideas, a nostalgic setting, and regional sales. At Two Roads, for example, visitors can observe the brewing process and enjoy a beer tasting outside in the beer garden.

In an era when the majority of beer is industrially produced by a handful of major international companies, the Americans are turning to an old

art form. Only 30 breweries existed in the United States in 1980; today, that number has grown to more than 2,400 – many of which are small local breweries. »People enjoy experimenting and discovering new tastes,« remarks Brad Hittle, the founder of Two Roads. »We are not just a flash in the pan – this is a trend.«

Yet none of this would be economically feasible without state-of-the-art technology – technology that often includes Siemens Braumat automation systems that help master brewers with their work. Siemens has already delivered dozens of these systems to craft breweries in the United States, and concrete discussions are already taking place with other interested parties. In the U.S. market for brewery technologies, Siemens commands a market share of approximately 20 percent. Sales to large breweries like Anheuser-Busch InBev account for most of that market share.

On the rise, however, are breweries that are experiencing strong growth despite being unknown internationally, such as Stone Brewing in San Diego, California, Bell's Brewery in

Kalamazoo, Michigan, Lagunitas Brewing in Petaluma, California, and Yazoo Brewing in Nashville, Tennessee. In the summer of 2012, Siemens delivered the Braumat Compact system to Two Roads and the brewery began using it for production in September 2012.

Quality is key

»The most important factor for success is a consistently high-quality beer,« says Hittle, who has extensive experience in consumer goods and the beer business. The name Two Roads comes from a poem by U.S. poet Robert Frost, and illustrates Hittle's philosophy of life – to always take the road less traveled. True to this motto, he quit his secure job as the head of marketing at Pabst Blue Ribbon, the traditional beer brand of Pabst Brewing Company, to establish Two Roads Brewing Company.

Hittle is pursuing a two-pronged strategy for economic success: First of all, he wants to establish an independent beer brand. But for economic reasons he also needs to fully exploit his brewing capacities –

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Proven technology for the process industry

Braumat technology from Siemens has been available since 1977. Braumat is the first SPS-based, recipe-controlled automation system for breweries. The centerpiece of this process control system is the Simatic PCS 7 controller. The process control system is scalable and used in numerous process industries.

Viewed from the outside, the turn-key Braumat Compact consists of a stainless steel cabinet with a touch panel for operation that is tailored specifically to the requirements of

smaller breweries. The inside of the cabinet contains switching elements that perform various functions, such as setting up the motor for pumping and opening and closing valves. Braumat has integrated libraries that offer off-the-shelf solutions for the production processes of smaller breweries – brewing, fermentation, storage, and filtration.

The control functions for heating and cooling are energy-optimized to keep operating costs low. A production planner organizes brews and cleaning, and also offers features like the monitoring and recording of process data. The process instrumentation – sensors, motors, and valves – is connected via the Profibus universal field bus system.

www.siemens.com/braumat



The entire Braumat production process at a glance: brewing, fermentation, storage, filtration. The centerpiece of the technology is the Simatic PCS 7 process control system, which is also used in other process industries.