



Streamlining the test process in a German beer production facility

Radeberger Group uses only the highest quality ingredients, such as hops and malt, allowing them to maintain their standards and produce the best beers. They brew their products in accordance with the strict specifications of the German Purity Law of 1516 supplemented with current testing and quality control procedures. In fact, they have received numerous awards that provide evidence of the excellence and consistency of their brands.

The laboratory for Radeberger Group, which analyzes both alcoholic and non-alcoholic beer as well as soft drink samples, is located in Frankfurt, Germany. Radeberger is represented in almost every region in Germany by its 14 brewing sites and two soft drink production facilities. Even though they adhere to traditional brewing culture, they actively develop their end product to reflect its regional heritage. Binding and Henninger are two of the premier brands recognized in Frankfurt and have been a favorite among German dignitaries since the 1880's. Raesen, a true fermented alcohol-free beer is also produced in Frankfurt. Guinness, Kilkenny, and Corona are among the globally known brands exported to 50 countries around the world.



Testing is done on in-process and finished products for bitterness, free amino nitrogen (FAN), sulfur dioxide (SO₂), β-glucan, and color. Wort and malt samples are also tested. Beer samples require some preparation prior to being tested and are treated in this lab with a solution containing 90% ethanol/10% octanol to reduce foam. To reduce the level of carbon dioxide, samples are merely shaken.

In the past, samples were tested using non-enzymatic methods on two Skalar instruments that performed only three tests. The Skalar units would require a dedicated technician to oversee the entire testing procedure and would waste large volumes of reagents if they were not shut down.

Older test results were correlated to newer enzymatic methods and the lab was updated to include a Thermo Scientific™ Gallery™ Plus Beermaster (unofficially named “Christian”) with which all their required tests could be run simultaneously.

Benjamin Oppe, Lab Manager, said, “It used to take half a day to analyze an average of 20–40 samples for three parameters. Now, most of the tests are completed in one hour.”



Additional benefits of the new discrete analyzer include a 10-fold smaller sample size and fewer reagents consumed during the testing process. The lab has routinely been using the Beermaster discrete analyzer for the past two years streamlining their testing procedures and producing excellent results. In the near future, they may add additional tests to their routine analysis including an ammonia test.

Find out more at thermofisher.com/discreteanalysis

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