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Mineralquellen Bad Liebenwerda GmbH: Innovating the syrup room

www.mineralquellen.de

Mineralquellen Bad Liebenwerda is a member of the Rhönsprudel Group, which is one of the top ten mineral water producers in Germany. Besides traditional mineral water, the product portfolio of Mineralquellen Bad Liebenwerda includes an extensive range of fruit juice and sparkling water mixtures, vitamin juice and other mixed beverages as well as lemonades that come in an array of containers. In June 2017, ProLeiT AG was commissioned to innovate the syrup room of the mineral water producer and to replace the existing INDAG solution. This involved ProLeiT supplying Version 9 of its Plant iT software and the required process engineering know-how.

The innovation project in Bad Liebenwerda included the incorporation of a total of four mixers or bottling lines and CIP automation for these bottling lines. Furthermore, a web-based scanner application was used to significantly simplify and optimise container handling,

goods receipt, qualified extension of the best-before date and transferring goods. This enables further options such as capturing meter data in the plant or analysing data via protocols. The benefits provided by the innovative process are numerous: For instance, complete traceability is guaranteed: Both forward and backward traceability activities offer reliable information across all production steps over a period of up to four years. More historic data can then be researched using offline analysis. Thanks to a cold-standby redundant concept, the maximum amount of data loss in case of system failure is just one hour. Moreover, restoration of a run-capable system is possible within a short time. Mineralquellen Bad Liebenwerda GmbH additionally profits from the option of being able to flexibly expand its plant whenever necessary. Even though the project had to be delivered under tight time pressure and without already existing plant states, commissioning still took place on schedule in October 2017; and follow-up projects are currently being planned.



ESN Deutsche Tischtennis Technologie GmbH: ProLeiT launches interface for BDE

www.esn-tt.de/en

As the hidden champion amongst the developers and producers of table tennis rubbers, ESN Deutsche Tischtennis Technologie GmbH offers tailor-made solutions to meet the individual needs and requirements of players. To be actively involved in the future of club and competitive sport, the company thus combines table tennis and technology expertise.

When it comes to satisfying individual customer needs, the world leader in this niche market segment sets its focus on sustainable and innovative production procedures and processes. In 2013, ESN Deutsche Tischtennis Technologie GmbH received an award for its outstanding performance from the Bavarian Ministry of Economic Affairs, Energy and Technology.

In order to deliver further improvements and sustainable, future-facing developments, the German medium-sized company entered into a cooperation agreement with ProLeiT AG in March 2017. After tailoring it to the specific requirements of the table tennis market, ProLeiT implemented Plant Acquis iT V9, the basic system for operation and production data management. With Plant Acquis iT, process, operating, machine and energy data of the stamping plant is recorded, processed, archived and provided for plant-wide information management. ESN Deutsche Tischtennis Technologie GmbH is therefore now able to record and evaluate production line data and to prepare further production data acquisition. Cooperation in this niche market segment was a first for ProLeiT, and final commissioning in 2018 saw the agreed action plan being implemented successfully and timely.



Sachsenmilch Leppersdorf GmbH: Automation of Infantose production

www.sachsenmilch.de

Taken over by the Theo Müller Group in 1994, Sachsenmilch Leppersdorf GmbH has since been gradually transformed into one of the largest and most advanced dairies in Europe. The milk delivered to the site – approximately 1.8 billion kg annually – is used to manufacture an array of products within a complex, partially automated plant. Throughout five production sectors, milk is processed to create basic and fresh products, cheese and powder. On board from the start: ProLeiT AG.

At the end of 2014, ProLeiT was commissioned with the process automation of the current project 'Molke 5', which also involved the construction of a new factory building. 'Molke 5' stands for the manufacture of dry mix lactose. Introduction of the new technology obviously sees significantly increased requirements being placed on the quality of products, increased hygiene requirements, shorter inspection and maintenance intervals as well as the complete verification of processes, including stability and standardisation. To improve the lactose yield, Sachsenmilch chose a plant concept for 'Molke 5' that differed substantially from the rest of the manufacturing processes and made ProLeiT responsible for controlling the supply of media, setting up the server and cross coupling to other plants.

Due to the enormous scale and complexity involved in automating the new plant, the project was divided into ten to fifteen individual projects, allowing the automation specialists to respond effectively and efficiently to changes, and thus challenges, during both the design and implementation phase. The project was brought to fruition in the following months and is based on the Plant iT version 7.12 currently running at the plant.



Necessary changes to the plans and constructional implementation resulting from optimising and expanding the actual plant concept led to a few delays and we were thus not able to start implementing the software at the plant until January 2016. After carrying out successful hardware checks and initial production tests, the key part of the overall project – full-scale automation of Infantose production – was completed by the end of March. The production plant was finally put into operation in April. A second project phase that involved automating and expanding capacity to meet whey delivery needs, which had been agreed during the first phase, was completed between October 2016 and January 2017. Complete expansion of process automation for 'Molke 5', including the integration of all the necessary interfaces into the existing plant, was completed successfully and allowed for plant continuity with a minimum of downtime.



Factory site of Sachsenmilch in Leppersdorf



The 'Molke 5' building