

application profile

Food // Ricola

Committed to continuity – with ideal production processes

Swiss herb drops and herbal teas in bags and instant form: Kundert Automation relies exclusively on Plant iT from ProLeiT to automate the production processes of Ricola at its plant in Laufen, Switzerland. This provides numerous advantages for Ricola.



The iconic Ricola jingle has featured in commercials around the world for roughly forty years. Laufen in north-west Switzerland, the home of the company founded by master baker and confectioner Emil Richterich in 1930, remains much the same today as it did back then. And strict continuity is also a key feature of the entire Ricola product portfolio. In 1940, Richterich invented a blend of 13 herbs, and this virtually unchanged recipe still serves as the basis for the company's Swiss herb drops today. Ricola has also been producing instant teas for roughly forty years; in 2007, tea bags were added to the range, and more recently tea capsules.

Cooperation between Kundert Automation and ProLeiT

When it comes to the automation and integration of in-house production, the long-established company has been working with Kundert



The Kundert Automation AG team

Automation AG since the early 2000s – a company initially founded as an engineering firm in Schlieren, almost 100 kilometres north-west of Zurich, in 1950. Since overhauling the production facilities in 2005 and 2006, Kundert has been the brains behind the automation concept for all Ricola production lines, and has supplied the required electrical engineering hardware and set up the corresponding control software..

Process control systems for liquid product manufacturers and processing plants: At Kundert, Plant iT from ProLeiT is the process control system of choice. "We've been working exclusively with ProLeiT software for twenty years now," Reto Burkart says. And it does

not take the company co-owner and executive board member long to list the reasons why. "The ProLeiT software products allow us to access a fully functional system library of automation resources and to use them perfectly within our chosen industries. At Ricola, for example, we use the Plant Liqu iT control system, which is particularly suitable for handling liquid products. This high level of maturity benefits both us and our customers. ProLeiT has never shied away from the increasing demands of our partners, particularly when it comes to expanding the functional scope of the control system both in terms of its boundaries and features."

Simplified software setup – easy upgrades

Burkart believes distinctive competitive advantages are achieved in the market by implementing basic ProLeiT functions. "In contrast to the competition, we do not have to first program all the plant operator's demands individually but are able to cover around 90 percent of the basic functions by using ProLeiT standard clusters. This fact alone facilitates software setup significantly and helps to save a considerable amount of time when implementing the hardware." According to Burkart, the users of ProLeiT solutions can save even more of their precious time thanks to the "very straightforward update and upgrade processes. To integrate a number of additional functions and to further develop the originally installed version V7, we initially

INFO

Ricola

Company:	Ricola AG
Sector:	Food
Location:	Laufen
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migrated the Ricola system to version 9.00 and then to 9.50. Further migration to version 9.70 is planned for this year to meet certain technical requirements. The two previous upgrades were carried out without any major disruptions to production, despite enormous changes to the system. An additional parallel development is the ongoing connection of further production plants to the ProLeiT system. Needless to say, such an advanced integration process also simplifies the entire upgrade process considerably." Kundert's many years of experience in using the control system have also enabled the company to expand its own scope of work and action:



Production of Ricola herb drops

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Production of Ricola herb drops

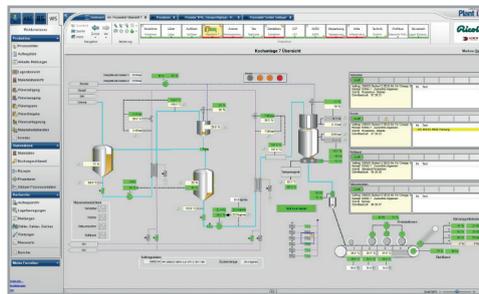
“In most cases, we are able to carry out the measures associated with setting up Plant iT ourselves. This obviously speeds up all software processes, which ultimately benefits our customers.”

The re-organisation and re-engineering of the entire production process also involved constructing a new production facility in Laufen. This is where, since 2005, all the plants and machines set up by Kundert have been equipped with Plant iT and thus incorporated into the existing overall system. In 2006, this focussed on the hoppers and tanks, as well as the dissolving facility and the tea preparation system, including extraction and aroma dosing. In 2013, the sugar melting plant was added, followed by the big bag packing systems between 2017 and 2019, and the herb preparation and mixing system, the hopper and tank extension and the sugar melting plant in 2019. The transport and box bag system will be converted to Plant iT by the end of the current year.

Improved transparency – increased speed

Moreover, a further cooking plant has been converted to ProLeiT every year since 2016; as things stand, three of the seven cooking plants still need to be integrated into the process control system. Burkart explains: “Using Plant iT as the basic structure, we have been able to develop standard software together with the plant manufacturer Bosch which we can implement in every future cooking plant. The main advantage for us is that it is now so much easier to integrate the three remaining cooking plants.” Burkart is clearly delighted with the greater level of control transparency for the cooking plant – “both through its centralised control and

product-specific settings”. “While the previously implemented system was somewhat of a black box for us and the customer, Plant iT provides the operator and licence holder with a comprehensive overview.” From the individual process steps to the respective parameters, you can view everything, for example various cooking temperatures, pressures or speeds, and are able to adjust all the settings based on this overview. “Plant operation and control via Plant iT has become so much simpler and much more transparent.”



Plant iT process picture – Overview of the cooking plant

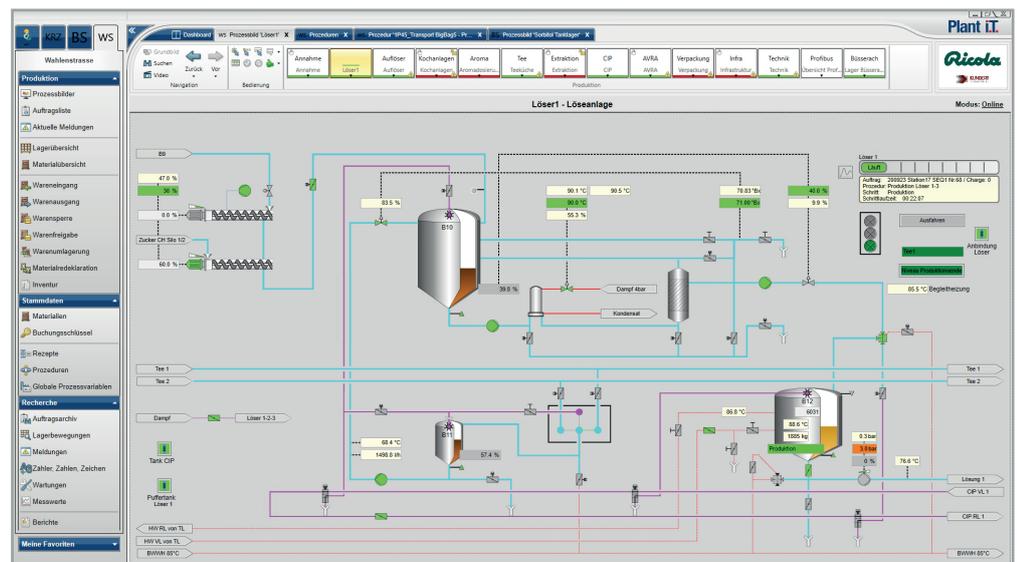
Flexible extension through additional modules

Ricola has successively added further modules to its process control system to enhance the range of functions. Over time, Plant Direct iT Visual Recorder, materials management and energy data acquisition modules have been inte-

grated. Burkart claims that this is how Ricola has learned to appreciate the material-related recipe approach, which allows all products manufactured to be tracked and traced. Integration of the Plant iT connect module is also planned in the coming months. The existing SAP interface was designed and programmed by Kundert 15 years ago. Burkart is sure that further advantages can be gained here, too: “With Plant iT connect, the customer always benefits from up-to-the-minute data in the ERP system and can, therefore, respond quickly to material consumption rates or updates. Transferring order and recipe data is also much easier with the new SAP interface.” Daniel Bhend, Head of Technology and Engineering at Ricola, is also very happy with how cooperation has developed between Kundert Automation and ProLeiT: “Plant iT not only provides us with full control of all the production processes, we are also well prepared to meet the challenges that Industry 4.0 may bring thanks to the high level of production data transparency. Further, we definitely benefit from the system’s agility, which adapts flexibly to changing requirements thanks to continuous updates. Cooperation with Kundert Automation and ProLeiT can be described as excellent and uncomplicated!”

Authors:

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Plant iT process picture of the sugar dissolver