Pant II. Process Control Systems. MES inside.



Success Story // Food Industry // Dr. C. SOLDAN, Germany





Choosing the Right Balance

How ProLeiT ensures batch-accurate reporting of order consumption at Dr. C. SOLDAN thanks to a new weighing system. The family enterprise Dr. C. SOLDAN GmbH is the herbal drop specialist. Its brands Em-eukal, Kinder Em-eukal, Rheila and Tex-Schmelz are well known and respected. And seeing as it is not just the quality but also the exact quantity of the ingredients that is essential, weighing plays a key role in the production process. Luckily, the herbal drop specialist can now rely on the Plant Batch iT Manual Weighing System from ProLeiT.

The family enterprise, which originated in Nuremberg and now employs around 230 people in the German town of Adelsdorf, has been making premium herbal drops that boost health and wellbeing for over 120 years. Production at the company additionally includes molded items like fruit gums. When it comes to quality assurance, Dr. C. Soldan GmbH is consistently in line with strict GMP standards (Good Manufacturing Practice) – from the careful selection of ingredients right through to the finished product. The company has had a license to manufacture pharmaceuticals under the German Medicinal Products Act (AMG) for over 50 years. Further, Dr. C. Soldan has been able to display "Bio" organic certification since 2004.

New weighing system at six lines

So far, so good – and when it came to replacing the aging weighing system used at various production lines in 2019, ProLeiT was on hand to help. Its modern Plant Batch iT Manual Weighing System visually monitors manual weighing processes, guides operators and guarantees the seamless tracking of batches.

ProLeiT was commissioned to implement the Plant iT process control system (version 9.60) and the manual weighing system (MWS) as an add-on. Thanks to its MES functionality and integrated



Exterior view of the plant in Adelsdorf



Dr. C. SOLDAN Sector: Food Industry Location: Adelsdorf Country: Germany



Product portfolio of Dr. C. Soldan

material management system (material master data, interfaces), Plant iT provides the basis for a fully functional MWS.

First, the main goal was to replace the previous weighing system with an equivalent solution without having to return to a paper management system. And second, to guarantee the seamless tracking of batches: The herbal drop specialist wants to know at all times how much is being consumed, when and where. This helps to ensure comprehensive transparency that ultimately pays off in terms of the required premium quality and adherence to strict GMP standards.

Tracking batches without a paper management system

Plant iT guarantees MES functionality. The data of the individual orders as well as the respective stocks and materials come from the higher-order ERP system and are transferred via Plant iT connect to the MES level and from there to Plant Batch iT MWS. Graphical monitoring shows whether the transfers are running without any glitches. The new manual weighing system has been in operation since September 2019 – it is implemented at a total of six lines for ten scales, while ProLeiT takes care of ongoing support and further development. As such, the continuous improvement process always picks up change requests that help to improve the overall quality of work and make the operators' life easier through new and more convenient functions.

Upcoming manual weighing orders are processed by the operators, logged by the system and documented through corresponding reports. Dr. C. SOLDAN utilizes all the available options to meet the required quality features, as the batch, calibration and weighing protocols provide comprehensive transparency – without the need for pen and paper, since everything is clearly prepared in the weighing mask.

Besides advantages for in-house service provisions, this also has a positive impact on contract manufacturing processes: Today, fine calibration of the scales can be performed and certified for customers even before the start of production: Calibration is simply started and a report generated. This gives customers the peace of mind that they are not paying too much for an excessive amount of raw materials. At Dr. C. SOLDAN, uneconomical weighing processes and off-specification batches caused by incorrect additives are a thing of the past.

Tailored order transparency

The fact that orders at Dr. C. SOLDAN have a somewhat complex structure was a hurdle on the path toward project success. For instance, every ERP order must first be converted into line-related MES orders. And this demand to split each large order into several smaller ones has been met by ProLeiT through an individually tailored approach: The basic package is a standardized version of Plant Batch iT with a specially extended task structure.

Further, the parameters of the graphical weighing mask are fully configurable for specific projects. Yet another added-value benefit that Dr. C. SOLDAN takes full advantage of is displaying the hazardous substances used in the process and the associated warnings. Operators are significantly aided by clearly structured visualization techniques and stored workflows, while the complete overview of all existing production orders enhances rationalized work practices.

From special case to productive solution

Despite the project requirements being less than clear at the start and a lack of documentation for the old system replaced by ProLeiT, all the challenges were overcome with flying colors: Every special case was analyzed and discussed together, and practical solutions were quickly adopted and accepted.



Production at Dr. C. Soldan

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Batch-wise Weighing	Orders and Batches	Components for Batch	Graphic Di	lisplay	Weighing
Material-wise weighing		Materialgroup: 1			Container ID
Tree weighing	Product 2090001 Order 81400001 Whole Grain Bread 500g Kneader 1	2050001 Whole Grain Flour	15.000 kg		90600000730
Production •					Target order 81400001 Batch 1
Process screens	10 Batch 1 10	2050002 Almond Flour	10.000 kg		Existing contents
🔋 Job list	3 Batch 2 1	2050003 Active Dried Yeast	4.000 kg		The container has no contents yet
[#] Batchos		2050005 Fermentation Aid	1.000 kg		Current Component
Current messages		2050006 Asco forte	2.000 kg		Whole Grain Flour
Warehouse overview			-		2050001
Material overview	2045	2045233 Natrium chloride	3.000 kg		Start 1. Material Check 2. Tare 3. Weighing End
K Goods entry		2045439 Demineralized water	15.000 kg		Current scale:
B Goods issue		Materialgroup: 2		Max. Setpoint	Scale 01
K Goods blockage		2050004 Prefabricated Dough	40.000 kg	15.000	Now dose the material
🚰 Goods release		-	-		
Soods relocation		2045439 Demineralized water	10.000 kg	14.850 Min.	Remarks on this component:
Attended redeclaration		Existing containers			
F Inventory		90600000730			Undo
Master data					Tare again or correct scale selection
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Screenshot of Plant Batch iT MWS

Or as Johannes Schwegler, the ProLeiT manager in charge of this project, says: "Dr. C. SOLDAN was delighted with our proactive and solution-driven project management. If problems arose, they were always clarified extensively to ensure no questions about the process remained unanswered. We simply sat down at a table together and, by thinking outside the box to determine what is actually important for the customer, we were able to overcome all the challenges that we encountered."

Accordingly, the project team of IT and production staff at Dr. C. SOLDAN is also very happy with the way the project was undertaken and concluded: "The straightforward, uncomplicated and solution-based approach of the ProLeiT team created a pleasant atmosphere and helped boost cooperation. Experience from other industries meant that solutions were quickly and effectively implemented for special situations or for newly developed varieties that place new demands on the system. Looking beyond the end of the project, we feel well looked after and, through the use of new forms of cooperation, employees are able to resolve any arising problems either on-premise or simply online. ProLeiT's experience in the field of general certifications has enabled us to maintain our high standards of quality."

Customer focus, pragmatic approaches to solutions and going the extra mile whenever necessary – this and, of course, the smooth set-up and running of the new Plant Batch iT Manual Weighing System are the reasons why further joint projects are already in the pipeline at Dr. C. SOLDAN.

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