

Pleasure Squared

On the outskirts of Stuttgart, the vision of “perfect chocolate” has been keeping successful indulgence specialists on their toes: In order to capture new markets, Ritter Sport places its trust in the know-how of Porsche Consulting when it comes to the necessary introduction of more flexible production methods.

📄 Elmar Brümmer, 📺 Boris Schmalenberger



44 by 44 meters, practical, good: Even the Ritter Museum pays homage to the successful (chocolate) square shape. Both formally and sometimes also in terms of its content. For instance, the latest special exhibition entitled “Movement in the square! The square in painting, kinetic art and animation” is on display until March 11.



The world in Waldenbuch cannot be spherical. Situated close to Stuttgart Airport, this world is bar-shaped. The reason for this: Every single day more than 2.5 million square bars of Ritter Sport chocolate are produced here. “Square. Convenient. Good.” This winning formula has not changed since the 1960s. But the foundations certainly have. Ritter Sport is evolving from a national to an international brand. As a consequence, bars and spheres once again need to fuse together to form a working cosmos. This is because the international focus demands changes in production: Depending on the particular country, the quantities of chocolate, in relation to the specific variety, are smaller. However, the diversity is greater, which is why the response time needs to be shortened.

These were the circumstances facing the company when the representatives from Porsche Consulting were asked to sit around the table by Alfred Ritter GmbH. There were no snacks on the menu though; shorter lead times, higher productivity and a better delivery service were the order of the day—and the knights of the round chocolate table knew exactly what they wanted. “How” this would be achieved was the responsibility of the project team led by Peter Oberwemmer, head of the production/logistics division at Porsche Consulting. Wide-ranging measures were required once again to successfully transfer the basic principles of lean and flexible production from the automotive industry to the food industry. “The entire supply chain had to be adapted to deal with the modified conditions,” says consultant Till Küppers.

But if you want lean action, you first have to start with lean thinking. As an unusual kick-off to the project, the people responsible for the project from Ritter led by added-value manager Kurt Hogh were asked to take ▶

part in an uneven pit-stop competition at the Hockenheimring racing circuit: On one side was the Porsche Motorsport factory team with the 911 Carrera GT3, on the other the chocolate experts with their promotional Smart car. The professionals needed just a few seconds, while the brave folk from Ritter initially took twelve-and-a-half minutes. However, it was not about the specific time, but instead about the principle: Teamwork, the correct sequence of maneuvers, having the right material within reach, the order of events, and correct training. “Lots of approaches for an integrated system” were identified by Andreas Ronken, managing director of production and engineering at Ritter Sport. Inventory management communicated in a sporty way. By the end, the interaction had been reduced from twelve-and-a-half minutes to just two minutes. Even at this early stage, consultant Jörg Uffmann was amazed by the “unusual dedication and the strong will for change” displayed by those affected.

These are characteristics which apply to most of the people who work for Ritter Sport, and it was hoped would prove to be helpful and time-saving in the implementation of the ambitious project aims. This is because the complex nature of the production plant immediately stood out on the first visit to the production site. The continuous conveyor belt on which the unpacked chocolate circulates for 45 minutes in the cooling channel alone is so vast that an entire building was constructed around the machinery. Although it is possible to modify individual sections of the belt, more major alterations would have been equivalent to a new construction of the order of magnitude of €40 million. Working together with the project group from the chocolate manufacturer, the aim was therefore to combine tried-and-tested technology with a better production flow.



Informative pit stop: Time is of the essence during a tire change

There is to be no shake-up of the square shape of the 100-gram Ritter Sport bar, but the diverse nature of masses of chocolate requires different casting molds in order to compensate for the specific characteristics of the product—for example when nuts are added. The combination of different chocolate masses, varieties and packaging results in several hundred different item numbers.

The first practical approach to achieving more efficient interaction was to replace the molds, which look like oversized ice-cube trays lined up in rows. Working on a joint basis, a blueprint for the fastest and best process sequence was developed and established. This allowed the machine set-up times to be shortened considerably. This process alone is of course not the end of matter, because this effect should also be used straight away to reduce ▶



Perfect change: The machine set-up times were reduced decisively at Ritter Sport

the batch sizes. “Our general concern was to make sure that the products learn to ‘switch over’ from one facility to the next, and do so as often as possible in order to keep moving,” explains Peter Oberwemmer. “We essentially don’t want to utilize the increase in capacity generated by the reduction in set-up times to keep the batches on the machine for even longer. This would be overproduction, and would damage the whole process. For example, a 50 percent reduction in set-up times can result in a halving of the batch size, without having to sacrifice even a second of production capacity!” Bold language is what is wanted, and it characterizes the general style and tone of the way that people deal with one another across all documentation in the successful project. And even with all these serious goals, the tone is as loose and easy-going as fine milk chocolate. Oberwemmer appreciates this: “You don’t get through to people by just always working with figures.”

Consultant Conny von Ludwig found the working relationship a real highlight: “It was incredible to see how on the set-up time reduction project, the employees developed their own ideas and implemented technical solutions displaying the best Swabian virtues.” The compari-

son with a lightning-fast pit-stop Formula One was intentional—the excursion to experience changing tires at the Hockenheimring circuit was beneficial for everybody. The “inventive brains” from the Seven Mill Valley had also grappled with their own honor of drastically undercutting a solution from a machine manufacturer which would have consumed a considerable amount of money. The fact that all of the people involved hailed from Swabia was certainly not a disadvantage here. The result: Faster, better, cheaper.

The assignment continued when Porsche Consulting proposed a combination of consumption-based and order-based production, jointly implemented this and thus turned the production philosophy on its head. There is no change in the flow of chocolate, but a piece list method of production has been transformed into process production. Changes are now made in accordance with specific key indicators which are stipulated and are based on current empirical data and the actual requirements of the market. In other words, the basic turnover is based on the (in some cases fluctuating) consumption of the market. Moreover, special promotions are specifically planned. Desired stock quantities and actual quantities now appear



Traffic light symbols for clear time measurement: In which production phase is which variety of chocolate?

on display boards within the production area itself. At just a glance, it is apparent where what demand needs to be met at what time. The chocolate makers can see for themselves how they can produce products in the most sensible way in the appropriate period of time. This type of product management makes the entire plant more flexible and shortens the time it takes to respond to the requirements of the market. This is especially significant given that the use-by date of chocolate must always be taken into consideration. With the aid of simple traffic light symbols, it is possible to identify at an early stage which variety is in which phase. The general shutdown of production operations as a result of machine set-up times was also reduced decisively in this way.

The company itself automatically contributes the other element that helps to guarantee Ritter's success. Since the early days of Alfred and Clara Ritter in 1912 in a sweet shop in the Stuttgart district of Bad Cannstatt, the quality of the chocolate has always been good. There is not just one single mass of chocolate that forms the basis of all the different varieties; rather lots of individual masses of chocolate and recipes are responsible for the great taste.

The 800 employees test the chocolate themselves every day. The famous bar is always on hand at every workplace and in every office. This means that, after completing the project, Kurt Hogh is not just familiar with the ingredients that go into full-nut chocolate or Jamaica Rum truffles, but also the principle of lean production: "The fundamental basis for all this is to install the technology and find the systems. However, a new structure only proves its worth if man and machine both grow together." Change happened here because of a specific concern that is very dear to the company. Following in the



Supply chain adapted to the new conditions: Ritter employees Andreas Ronken and Kurt Hogh together with Porsche consultant Peter Oberwemmer (left to right)

footsteps of the owners of the highly traditional and responsible family company, the management's maxim is to promote Germany as a place to do business and preserve every single job in Waldenbuch. The project aims implemented also serve as a basis for this. This means that the right note has been hit at Ritter. Porsche Consulting is now also providing consulting services at the management and sales level. Hogh knows all too well: "In our industry it is helpful to align the company with the requirements of production. Sacred cows—as we have learnt—can provide the best meat for implementation here!" The knights of the round chocolate table enjoy working on the brighter side of life. ◀