

*Case Study***Schafler's Kornkraft shows its strength**

Efficiency in every step of production



Schafler Mühle GmbH in Gersdorf an der Feistritz is a modern speciality mill. Located a few kilometers east of Graz, the capital of the Austrian state of Styria, it is the biggest spelt processor in the country. To increase product safety, Schafler has become the first mill in Europe to put Bühler's small planifter, MPAU-1, into operation.

"We don't play in the same league as the really big mills," explains Markus Schafler, managing director of Schafler Mühle GmbH in Austria. "But with a total capacity of 250t/24h for the hulling and flour mill and 25 employees, our size makes us very flexible and means we are able to produce special flours."

The traditional meets the modern

Schafler Mühle in Gersdorf an der Feistritz in the Austrian state of Styria has a long history. The mill in Gersdorf was mentioned for the first time in a document from 1507. Today, the mill continues the tradition of using renewable energy for production.

Originally, the mill was powered by a water wheel. Today, the company has its own hydroelectric power plant and a large photovoltaic system that together supply up to 50 percent of the electric current for the modern mill.

The solar power installation will be expanded in the coming years, further increasing the share of renewable energy that powers the mill.

Regional roots

Schafler Mühle's product philosophy is deeply influenced by both respect for the environment and a close affinity for the rolling hills of Eastern Styria. The company states that only high-quality raw materials, which have been cultivated and ripened in an environmentally friendly way in local fields, are refined to Schafler's Kornkraft at the mill.

The millers personally select the best grain from farmers in the region, check for purity and ensure that only the best of the best grain is processed.

In recent years, sales volumes have grown so much that local farmers can no longer meet the entire raw material needs of the mill. "Nevertheless, 30 percent of the grain we process still comes from fields within a 50-kilometer radius of the mill," says Markus Schafler.

Styrian quality flour

"Schafler's Kornkraft is what makes it a success!" That is the speciality mill's motto. In keeping with the company's philosophy, wheat, rye and spelt are processed into coarse meal, whole grain flour as well as standard flours and special quality flours. Customers can buy these quality flours in various types such as glatt (fine), griffig (coarse) or Auslese/universal (between smooth and coarse).

Special flours appeal to the mill's wide spectrum of customers with their diverse wishes. "We sell our flours to very small customers, to village bakeries as well as to



industrial buyers," says Markus Schafler. Around 80 percent of the production is sold within Austria, and the rest is exported as quality flour.

The 'flour shop' is popular among retail customers from the region. The mill shop, which was refurbished in traditional style around the turn of the millennium, not only offers the full range of Schafler products but also regional specialties such as pasta, muesli, chocolate, pumpkin seed oil and more.

Specialist for spelt

Of all of Schafler Mühle's specialties, the spelt products are the ones that stand out most. Schafler was the first mill in Austria to embrace this old grain variety, even before the turn of the millennium, and is now the largest spelt processor in the country.

Spelt grows in its hull, which protects it well against environmental influences. Before it can be ground, the grain has to be gently dehulled. To do this, the mill uses two modern Bühler dehulling and sorting lines, which also contain the latest generations of optical color sorters.

These processes are integrated in the modern, flexibly designed silo plant, thus guaranteeing both food safety and 100 percent traceability from the farmer to the end product.

The climate in southeastern Austria is ideal for spelt. Schafler Mühle therefore acquires its spelt mainly from farmers in the region, all of whom are affiliated with the mill through long-term contracts. Only single-variety seeds are



used – and this is the basis on which the mill guarantees the quality of its products.

Continuous development and improvement

Schafler Mühle might have started life in 1507, driven by a water wheel, but today it is one of the most modern mills in Europe. There have been many milestones in its history. In 1955, it was the first Styrian mill to install pneumatic conveyor equipment.

The grinding equipment was automated in 1965, and then in 1988 it was fully refurbished and new roller mills installed. In 2003, the flour silo plant was expanded, and an automatic bagging and palletising plant commissioned.

A new flour loading silo was built, and the first spelt hulling plant installed in 2007. Then in 2010, a grain storage silo for around 5000 t was commissioned, as well as the special mill for rye and spelt grinding. 2014 saw the expansion of the flour silo and a batch mixing system, and in 2017, the wheat mill was modernized and its capacity increased. Most recently, in 2021, the hulling mill was expanded to include additional grain varieties.

To keep up with the latest developments in milling technology, the Schaflers regularly attend conferences and exhibitions. They also maintain a close relationship with the technology leader Bühler. Markus Schafler's grandfather bought his first machines from Bühler in 1970. Today, Bühler still plays a key role for the company, "Bühler is an important partner that we can always rely on," he adds.

MPAU in real-life testing

This is why Markus Schafler did not hesitate when he received an offer from Bühler to test the new small plansifter MPAU-1 in real life as a pilot partner. In December 2020, the previous small plansifter MPAU-1 was replaced by its successor, the MPAU-1.

"The new sifter already fulfilled the promises Bühler's experts made during assembly, installation and commissioning," says Markus Schafler. "The installation was incredibly easy. The new sifter was installed 1:1 in place of the old MPAU-1 within just three days, and during active operation.



Because the machine is sturdily built, it did not have to be handled with kid gloves during installation either."

The initial impressions were not the only positive thing. During practical use in everyday work at Schafler Mühle, the MPAU-1 also fulfilled the promises that Bühler made. The MPAU-1 with NovaTec sieve stack has already chalked up over 1200 operating hours.

The sifter is used for control sifting and resifting. For wheat and spelt flours, the machine achieves a performance of 12 t/h, and 9 t/h for spelt flour – all with a sieve size of 280µm.

"It runs much more smoothly than its predecessor," says Markus Schafler after the first experiences in operation. "The throughput is higher, and cleaning is at least as easy as with Bühler's other sifters. Access to the drive is easy, which considerably simplifies cleaning and service work, such as changing drive belts."

Checking & classifying

The new small plansifter MPAU performs its tasks with great flexibility, in the smallest spaces, with the best hygiene and the greatest efficiency. The plansifter sifts and sorts coarse and mealy products in wheat, rye, corn and durum mills.

The small plansifters are suitable for rescreening directly after the mill or before bagging. They can also be used for classifying powdery, floury or granular products. The "inner workings" can be configured according to the intended use.

The sieve frames can be supplied as plastic or wooden constructions. Modern Nova sieve cleaners are used in every version.

The MPAU has an impressively compact, space-saving design and is mounted in a specially designed support frame. The high throughput combined with high sifting efficiency and a small installation area guarantee an excellent space/performance ratio.

It is also made of high-quality materials and ensures a long production life. The sturdy construction enables reliable operation with minimum maintenance effort.

The parts in contact with the product are easy to access and simple to clean.

The wide front doors allow the sieve frames to be installed and replaced in a quick, user-friendly manner.