

## Castle brewery increases malt handling efficiency



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The Castle Brewery in Ingelmunster, close to the famous Belgian medieval city of Bruges, has been founded by the family Van Honsbrouck. For decades they have specialised in brewing wellknown craft and fruit beers such as Brigand, Castle Rouge, Cuvée du Château and St Louis.

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Van Honsbrouck has a strong growing local and European market share but the expansion is mainly in the USA, a region where Belgian craft beers are most appreciated.

### Challenge

Because of limited expansion facilities in the old brewery, Van Honsbrouck was forced to work with traditional malt handling technologies that could not comply anymore with the modern technologies.

- Saving energy, working in a safe and dust-free environment, hygienic design,... were some of the main challenges that had to be achieved in the new brewery concept.
- Also a larger, more efficient and flexible raw material storage has been achieved by stepping away from the traditional malt handling technologies that have been used as a standard for ages.

- These traditional technologies do not allow accurate dosing and cannot comply with the strict ATEX (dust-explosion protection) legislation that are compulsory since 2003 in all dust related environments.
- Integrating more energy efficient components must decrease the production cost and avoid intensive maintenance.



Dedicated bigbag -and bag discharge points in a dustfree environment

### **Solution**

After having spoken to several Spiromatic references in the Food Industry and more specifically via other brewers, Alex De Smet, Van Honsebrouck's project manager for the new Castle Brewery, decided to choose for the typical Spiromatic malt handling approach.

// *I can tell you that Spiromatic's installed process is considerably more efficient at all levels where we wanted to make the difference*

Mainly the use of composite outdoor silos and the hybrid malt conveying technology made the difference for Alex, as well as the detailed process proposals and the fast reactions of the Spiromatic engineering team.



- The wet mill in the new brew house is continuously filled with different types of malt by a multiple batch weighing hopper.
- The different types of malt are dosed to the weighing hopper by an accurate vacuum conveying system after being screened through a powerful magnet and a sifter/stone catcher.
- 6 x 50 T composite outdoor silos for pils- and pale-ale malts and 4 x big-bag filled 3m<sup>3</sup> indoor silos for special malts, dose very accurately in the central vacuum conveying line.
- In order to comply with ATEX regulations and to protect the environment all hazardous dust points are controlled by reverse jet dust filters.
- Pre-proportioned ingredients can be dumped in a dedicated bag-dump device that is connected to the central vacuum conveying and that will be added to the main recipe.



Dustfree batch weighing and sifting via vacuum conveying

- On the other side of the brewery Spiromatic has built a 58m<sup>3</sup> silo for spent grains, equipped with a special wet-screw and put on a dedicated high steel support in order to fill all types of trucks. This spent-grains silo is directly connected to the filterplant of the brew house and can be cleaned automatically.
- As a composite specialist Spiromatic has also supplied Van Honsebrouck with indoor composite water tanks for recovery and waste water, a solution that is more and more popular in order to replace the more expensive stainless steel or wearable steel tanks.



Composite silo for spent grains

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### Results

Alex De Smet: "As we are in a complete new plant, it is difficult to speak in figures of energy and other cost savings, but I can tell you that Spiromatic's installed process is considerably more efficient at all levels where we wanted to make the difference: energy, hygiene, accuracy, efficiency, operational cost, limited maintenance cost,..."

"If we don't do it right from the beginning with our ingredient handling, it is impossible to obtain a stable and good quality. And this is also what our customers and the consumer expect, isn't it?"



### Are you convinced?

Check out our outdoor silos brochure