



## ZETES CASE STUDY | Duvel



### Duvel Moortgat traces products with help from Zetes

*When Jan-Léonard Moortgat started brewing high-fermentation beer in 1871, he could not have imagined that people would be enjoying his recipe all over the world 140 years later. Duvel Moortgat currently employs 346 people, 214 of whom are in the main plant in Breendonk. The company, which is growing every year (from a turnover of €66 million in 2005 to €113 million in 2009), is going for the export market in a big way. Over the last few years, the brewing firm has invested heavily in automating its production process. Zetes' technology is being used for the traceability of internal stock movements and preparations for dispatch.*



Today, the fourth generation is watching over the Duvel inheritance of their forefather. Hardly anything has changed in the original recipe and maturing process in all those years. However, the range of products has evolved. In addition to the famous Duvel brew, the Breendonk brewery now also produces beers under the names Vedette, Liefmans and La Chouffe. The biggest change since its early years is probably the infrastructure. Whereas at the start of the previous century only a few crates were produced for sale in the local region - mainly in Brussels - Duvel Moortgat produced 440,000 hectolitres in 2008. In order to guarantee the quality of this enormous production output, the company has to continue investing. Moreover, the current legislation makes strict demands. "In order to comply with the legislation, you have to be fully able to trace all products," says logistics manager Dirk Waterschoot. A project for new labels and scanners was undertaken.

First, theFirst, brewing room and bottling plant were tackled. The link to the customer was addressed in a subsequent phase. "A specially-developed tracing software program ensures that we can now trace every step in the production process. That starts with the supply of malt, all the way to the delivery of beer to the end-customer." This is an extremely important factor for a company like Duvel Moortgat, where product quality is paramount.

#### Preventing errors

Previously, all movements used to be recorded with the aid of paper loading slips. If something was moved in the cool rooms or a truck prepared for delivery, then paper was required for every step of the process. "With that system we had little control over what finally ended up with the customer," Dirk Waterschoot commented. "What's more, the process was labour-intensive and there was a risk of errors." Replacing the entire packaging process, however, involved a number of challenges. Duvel Moortgat found in Zetes the most suitable partner to take on the task.

#### Customised process

On one hand, many of Duvel's activities take place in open air spaces. That means that going for handheld terminals is not always the best option. Sometimes the weather conditions can make scanning difficult, as well



as entering and reading data off the terminal screens.

Nevertheless, Nevertheless, Zetes came up with alternative solutions. The various new hardware components from Zetes had to be integrated with the existing tracing software without loss of data. The advantages of the new technologies soon became clear: “Our stocktaking used to be done manually in two shifts. Thanks to the barcode scanner system, this process now goes much faster and we avoid errors, noted Waterschoot”.

#### Fixed barcode scanners

In each phase of the process, a barcode enables the traceability of products. When the beers are ready for transportation, the computer system releases them. This way, a loading assignment is generated with a barcode automatically. The assignment contains the data indicating the destination of each load. The individual barcodes of all the pallets that are to be loaded onto each particular truck are linked to it.

A barcode scanner by Sick is installed on the forklift trucks. “Scanning is done automatically when the pallets are moved. The scanners are connected to a Zetes IND terminal in the cabin of the forklift truck, which forms a wireless connection to the tracing application. Using the feedback on the terminal screen, the driver will know whether he’s loading up the right products, Waterschoot explains”



#### Thoroughly tested

The most important requirements during testing in 2009 were reading speed, accuracy and distance. In addition, the scanners needed to be usable in all types of weather conditions: tests were conducted in heavy rain and bright sunshine. Finally, a metal construction around the scanners provided extra protection and absorbent braces compensated for the vibrations caused by driving over uneven ground.

In the case of mixed pallets, scan terminals from Motorola were used in a small section of the production line (the 75-cl line). Here too, the label is linked to the source pallets, which makes complete monitoring possible.

Duvel Moortgat are delighted with the product provided by Zetes: “Thanks to this investment, we can check and control things much more quickly.” Time is no longer wasted by the driver having to get out of his vehicle to scan his load manually. In addition, the scanning system is completely reliable in any sort of environment. “We did still consider using RFID technology, but because there would be too much disturbance when scanning metal barrels, we ignored that option. The most important feature of the entire project is that we can raise the level of quality by reducing the margin of error and extending traceability to the entire production process,” concludes Dirk Waterschoot.