

# PALM AND CTAC INTRODUCE INTELLIGENT DRAUGHT BEER SYSTEM



From 2007 to 2014, the Tapmaster from Belgian brewery group Palm NV was unique around the world. In recent years, however, competitors have launched similar integrated draught beer systems on the market. That's why, with Ctac's support, Palm came up with SmartTap, a draught beer system with smart sensors which allows Palm to regain the lead on the market. Mark van Oppens, Sales Manager On-trade at Palm, talks about the origin of this innovative Internet-of-Things solution.



Palm NV comprises the Palm, Rodenbach and De Hoorn breweries. The brewery group brews specialist Belgian beers and is the market leader in the amber beer segment, with well-known brands including Palm, Rodenbach, Brugge Tripel and Cornet. Palm NV has been part of Royal Swinkels Family Brewers (formerly Bavaria) since 2016.

## **Early detection of tapping problems**

Palm's Tapmaster is a beer draught system with an integrated keg refrigerator and chilling up to the tap. Using this system, bar staff can get more beer out of a keg as no beer is lost when hooking up a new one, and they no longer need to run off the first glass every day. In addition, the beers on tap also keep for longer, allowing catering businesses to offer a greater variety without any being spoiled.

Over the years, the large breweries have all released their own draught systems with integrated cooling. This is what inspired the further innovation at Palm, says Mark van Oppens: "We want to take the lead again with the

Tapmaster. That's why we want to be able to monitor the temperature of the keg refrigerator and the pressure in the lines.

When our technical department receives a report about tap problems, the cause is often related to temperature or pressure. For example, the cooling system fails due to a power outage, or someone has left the refrigerator door open. This may cause the temperature of the beer to rise and make it impossible for the bar staff to serve quality beer. The consequences of such an event may have a long-lasting impact. If the kegs are too warm, it may take up to 15 hours before the system is back to normal. Beer needs one hour of cooling to make the temperature drop by one degree.

Problems also arise if someone accidentally touches the knob for the carbon dioxide supply, or air enters the lines when changing the keg. In that case, the beer will start to foam excessively. We asked Ctac to come up with a way of identifying these problems at an early stage."

### Sensors report deviations

Ctac came up with the idea to equip the Tapmaster with sensors which measure the pressure and temperature in the Tapmaster. The system recording the measurements will send an alert when the readings deviate too much from the reference values. At that moment both Palm's technical department and the bar staff will receive a message via an app specifically developed for this purpose by Ctac.

Mark: "At that point we will be able to contact the bar staff and find the cause of the report together. This way, we have a solution before something actually becomes a problem. Alternatively, the information from the sensors also helps us to solve problems which are reported to our technical department by telephone."

Ctac used the SAP Leonardo IoT service on the SAP Cloud Platform to receive, store and process the sensor data. A server-side JAVA application processes the sensor data and sends out notifications. Users will be able to see the sensor values and any warnings in a SAPUI5 environment.

Mark explains how Palm can benefit from this: "This technology reduces the pressure on our technical department. Bar owners can now intervene more easily and we can manage problems remotely rather than on site. This makes our customer service more efficient and enables us to serve our customers even better. Finally, the more consistent quality of our beer contributes to improving consumers' perception of the Palm brand."

### Smarter taps

The SmartTap is now in use at four catering businesses in Belgium. The pub owners are delighted, says Mark: "The pub owners know that we are looking out for them, and they appreciate that extra security. Together with Ctac, we have invested a great deal of time in making the SmartTap economically viable so that we can make it part of our standard offering. And that's exactly what we've

done. Starting next year, we want to offer the full solution with every new draught system we install. Our target is to install the SmartTap in 50 bars by 2020."

### Ctac increases business value with technology

About Ctac's role in the project, Mark says: "I'm very happy that Ctac wanted to help us develop a technological innovation for our Tapmaster. They really were the driving force behind this project. They are very good at asking the right questions about our ideas and then bringing focus and structure to it all. They told us very clearly: 'You are the experts, tell us what the issues are.' Temperature and pressure problems were the first ones to come up. I think it's great that Ctac also has the in-house technical knowledge to come up with a practical solution to our problem. They thought long and hard about the right measuring methods and corresponding software and hardware. The result is impressive."

### What else is in the pipeline?

Mark sees many more possibilities for the SmartTap in the future: "If the SmartTap is installed at more locations, we will also be gathering more data. This will allow us, for example, to make certain predictions. Suppose we discover that cooling fans need to be replaced after five years on average. This will allow us to apply preventive maintenance to the tap systems from now on. It would also be great if other measurements could be added to the SmartTap, such as volume measurements. We would then know how much beer is still in a keg or how much has been used."

### A proud, creative brewery

Palm is a relatively small brewery. Yet it has now introduced another innovation which no other large multinational brewer has. "Thanks to the SmartTap, the quality of our beers will be even better and more consistent", Mark explains. "That makes us proud and it definitely suits us. We always use our creativity to compete with the big multinationals."