BEVER INNOVATIONS

INDUSTRIAL

CASE STUDY

CLIENT: Burg Group

LOCATION: Heerhugowaard, The Netherlands

PROJECT: Dynamic, food-safe lighting for vinigar and sirup factory

Burg GROUP

CASE STUDY

LED luminaries make natural vinegar factory Burg Group in Heerhugowaard not only extremely sustainable but also optimally visible

Family firm Burg Group has been specialising in the sustainable production of natural vinegar, cleaning vinegar and tasty syrups for more than 70 years now. 'Our natural vinegar factory has been located on De Zandhorst industrial estate in Heerhugowaard North since the start of the 1970s', says Martin van den Booren, Plant Manager at Burg Group. 'The production and processing technologies here have changed dramatically over the years, though. What's more, the (fermentation) drums have increased considerably in size, which made a renovation and new-build project necessary. That's something we're taking care of over various phases. Fully sustainable and with state-of-the-art technology, a smart, energetic power grid in the ground (the Waerdse Energy Circuit) and sustainable, dynamically controlled LED lighting. All work will be implemented in a phased approach to ensure no disruption to the vinegar production process.'

The renovation and new construction work has given rise to such things as a new tank park encompassing 49 new, colossal tanks, each of which has the capacity to store 144,000 litres of natural vinegar. 'This new tank park created space for a new brewery section', explains Van den Booren. 'Moreover, the existing brewery has been renovated. We also created a new shipping area featuring various loading bays, as well as a new high-rise warehouse (black box). At present, we're having a breather, but in 2021 we'll be adding an office building between the new brewery and the high-rise warehouse. A proportion of the production will be reinstated too.'

EXCEPTIONAL CIRCUMSTANCES

The vinegar brewery is where the fermentation process takes place, with ethanol (alcohol) being converted to <23% acetic acid fully automatically 24/7. 'At 13 metres in height, the brewery is a pretty tall space', says Van den Booren. 'This set unique requirements in terms of the lighting, including in terms of possible glare from the stainless steel fermentation drums. Furthermore, as staffing levels in the brewery vary and are often limited, and as there is plenty of daylight ingression, we wanted to have dynamic (day)light control. The LED luminaries from Bever Innovations' Industrial division meet these requirements perfectly. The LED lighting manufacturer scrutinised the challenges presented by our site and made things hassle-free for us by drawing up a bespoke lighting plan, which specified the best positions for the luminaries. What's more, Bever Innovations has a great portfolio using reliable, proven products. Such as the LS LED luminaries, around 20 of which have been installed in our brewery.'

In order to ensure good, uniform illumination at all levels, the Industrial division supplied 300-lux LS luminaries. We went for special Rectangular Beam lamps, which were originally developed for use in warehouse aisles. 'The luminaries are only on when people are present', says the Consultant Industrial Lighting at Bever Innovations' Industrial division. 'As soon as a sensor on one of the lights detects motion, the lighting switches on automatically to a preset light level, taking into account the daylight level, the temperature in the room as well as the applicable health and safety standards. In addition to this, the linked lamps are activated (automatically and fully wireless).'

HIGH QUALITY, LONG LIFESPAN

'Aside from the height issue, Burg Group's brewery has some places that aren't readily accessible', recalls Van Ham. 'Hence it was imperative that the LED luminaries have a long lifespan—a requirement for which our LS luminaries are ideal. The high-quality LED luminaries guarantee a long lifespan of >100,000 burning hours, without loss of light.' If the temperature of the LED circuit board exceeds 80°C, the LIPS (Luminary Intelligent Protection System) will automatically be activated to dim the lamp. What's more, every segment of the circuit board is continuously checked for voltage spikes, temperature breaches and short circuits. In addition, the luminaries feature a Light Normalizer that continuously measures reductions in light output and, if necessary, automatically compensates for them.

MAXIMUM VISIBILITY

Subsequent to the LS LED luminaries, Bever Innovations' Industrial division was also able to supply several RGB-LS. 'Because we're extremely proud of our vinegar production and are keen to show the outside world our production process, we've put the fermentation drums behind a large glass façade', says Van den Booren. 'The drums are illuminated by RGB luminaries from both above and below, enhancing visibility in the dark. A number of RGB luminaries have been fitted in the tank park too. We went for a blue colour, because this ties in best with our house style. We're now doing a lot more in terms of sustainability, though, so we're considering switching over to green. Bever Innovations' control module makes it straightforward for us to change this colour ourselves. An added bonus of this system.'

The RGB lighting is automatically switched on as soon as dusk falls, he explains. 'This is around 5 p.m. in the winter months. Moreover, the lighting is automatically switched off at sunrise.'

DELIGHTED

A few months after completion Van den Booren is visibly delighted with the new lighting. 'The installation was very well done and since then we haven't had any problems', he says. 'What's more, Bever Innovations is a very nice partner to spar with.'

Bever Innovations B.V.
Techniekweg 2 | 4301 RT Zierikzee
The Netherlands

Tel +31 111 74 54 00
info@beverinnovations.com
www.beverinnovations.com