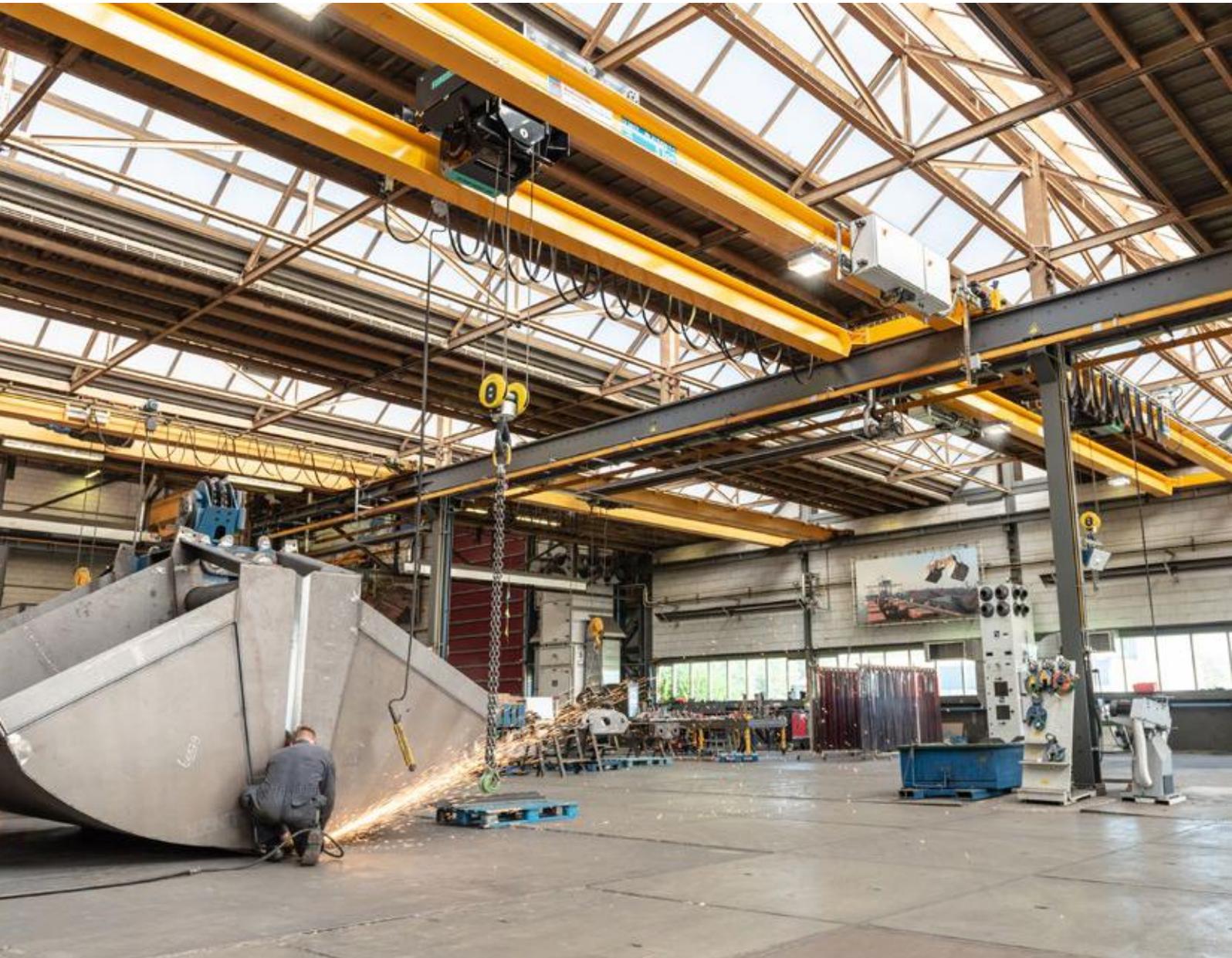


CASE STUDY



CLIENT: Nemag
LOCATION: Zierikzee, The Netherlands
PROJECT: Installing intelligent Luci Series LED luminaries in various production halls



CASE STUDY

MICHAEL CORBEAU - GENERAL MANAGER NEMAG:

‘Despite the fact that there are far fewer lights than was previously the case, the light intensity on the shop floor is the same.’

For many years now Zeeland-based family firm Nemag has been developing and building grabs with capacities of up to over 60 m³ for the storage of dry bulk goods such as coal, iron ore, steel, grain and biomass. All grabs are developed and manufactured entirely in-house in Zierikzee, The Netherlands on the basis of innovative concepts before being exported across the globe.

The production areas in Zierikzee have been being lit with energy-efficient, high-frequency fluorescent lighting for around 15 years now. ‘Back then this was innovative equipment, but unfortunately it has frequently given rise to problems in our factory’, says Michel Corbeau, General Manager at Nemag. ‘We do a lot of welding in our construction workshop, which causes frequent voltage spikes in the grid. It turns out that the electrics in the fluorescent lights can’t cope with this, meaning we regularly have to replace the electrics, with all the disruptions and expense that this entails.’

To combat this Nemag started looking for an alternative lighting solution, he says. ‘Our search focused not only on optimum robustness, longevity and energy-efficiency on the part of the lighting but also on the options it presented for smart control and settings. Characteristics all embodied in the Luci Series Industry LED luminaries from Bever Innovations Industrial, which is established in Zierikzee just like Nemag. At the start of this year, when we were installing two new cranes in the factory, we decided to set up a trial with the Luci luminaries, which we did in conjunction with Bever Innovations. Following on from these cranes we also fitted out a construction hall and a warehouse with Luci luminaries last August.’



CONSIDERABLE SAVINGS ON ENERGY

Nemag’s factory has a surface area exceeding 7,500 m². ‘In recent years the lights have been continuously on here, from the moment the first staff member enters until the last employee leaves the premises’, explains Corbeau. ‘Even in the rooms where there was barely any activity. The new Luci luminaries with Smart technology have changed this. The luminaries switch on quickly to a pre-determined light level as soon as our workers enter the room. If no motion is sensed for five minutes, they automatically dim once more and after another five minutes they automatically switch off.’

Aside from the motion sensors, each Luci luminair contains a daylight sensor, says Tomas van Ham, Consultant Industrial Lighting at Bever Innovations Industrial. ‘After all, there’s plenty of daylight ingress in Nemag’s factory, which the Luci luminaries automatically adjust their light output to. The upshot of this is an additional energy reduction of 70% compared to standard switching on and off, with safety and light comfort being continuously guaranteed thanks to the even light levels on the shop floor.’

LUMINARY INTELLIGENT PROTECTION SYSTEM

A light level of 100 lux was wanted for the warehouse, whereas a considerably higher light level of 400 lux is present in the construction hall, says Van Ham. ‘All luminaries have a so-called Luminary Intelligent Protection System (LIPS) as standard. Every segment of the PCB is continuously checked for such things as voltage spikes, short circuits and temperature breaches. In addition, the luminaries feature a Light Normalizer that continuously measures reductions in light output and, if necessary, automatically compensates for them. The light output remains the same throughout the luminary’s lifespan (>100,000 burning hours), meaning the problems Nemag was faced with before are now a thing of the past.’

The staff and technical service are extremely impressed with the new lighting. ‘Despite the fact that there are far fewer lights than was previously the case, the light intensity on the shop floor is the same’, says Corbeau. ‘We’re really curious to see whether this light level will be maintained in the winter when there’s less daylight ingress, but we’ve got full confidence in the lighting. Our colleagues are extremely impressed with all the technology that’s been integrated into the luminaries, the automatic dimming and associated energy-saving. But they’re also a little wary, because of past disappointments with innovative lighting technologies. That’s another reason why we started with a pilot first. If this pilot proves successful, then we’ll be getting our other rooms kitted out with Luci luminaries too.’

CASE STUDY

PILOT CUSTOMER FOR EOS CONNECTED

Running in parallel with the Luci Series Industry LED luminaries pilot is another pilot for EOS Connected, the latest online platform from Bever Innovations, says Van Ham. 'EOS Connected takes all the data from the Luci luminaries—such as energy consumption and maintenance status of the luminaries as well as activity detected—and presents it clearly in the customer's own system. Not only is it possible to steer things proactively on the basis of this data, but it's also easy for users to generate analyses and reports with it.'

ADVANTAGES

Optimum visibility:

The strength, clarity and reflection of the LED luminaries creates an even illumination in the room, enhancing visibility, workability and safety there.

Savings on time and labour:

The LEDs last considerably longer than conventional lighting, which saves on the costs of maintenance and replacement.

Less cooling required:

Due to the fact that the Luci luminaries give off far less heat than (for example) fluorescent lighting, considerable savings can be made on cooling.



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