



THE GRASS IS ALWAYS GREENER WITH LED

Recreational Systems Europe has partnered with Rhenac GreenTech to offer their innovative LED grow lighting system to sports clubs around the world, as Tom Mathys explains.

Can you please give our readers an overview of your partnership with Rhenac GreenTech and how you will be representing them?

Rhenac GreenTech has selected Recreational Systems Europe to represent them for the commercialisation of their patented lighting systems. Thanks to our extensive network across the sports industry sector, we have secured this partnership with Rhenac to represent them as their commercial partners. It is a global agreement. Rhenac are a German company and they will service German speaking countries like Switzerland, Austria and Germany. Apart from these we will be the exclusive partner for their systems worldwide.

Can you give us some details about the stadium grow lighting rig system that you are offering and how is this different from other lighting rig systems currently on the market?

The system is based on LED lighting technology and not high pressure sodium (HPS) lamps which are the traditional lighting systems you can find in many stadiums presently and which emit a typical yellow/amber light.

Our LED light is quite different and emits a combination of blue and red, which together gives a purple colour, typical of Rhenac lighting systems.

Blue spectrum lighting is generally speaking used for optimal root growth and to create higher density grass. The

red light spectrum is used to enhance growth of the grass in length.

A very important difference is that LED is a cold light and it does not emit any heat, which is a big advantage for clubs which don't want to spend unnecessary money on heating their pitches when it is not necessary in spring and summer.

The reason is that traditional lighting systems like HPS lights emit a certain amount of heat whether you want it or not. It is an unnecessary expenditure on electricity and a second negative effect can be that in warmer countries where there is enough heat, like Italy, Spain, Greece, they don't need additional heat in spring and summer and their grass gets stressed unnecessarily using HPS lamps. Our LED lamps will never do this.



What are the main benefits that using LED technology in this system offers clubs and grounds staff, compared to more traditional types of lighting grow systems?

It is a very flexible multi-channel type of light and this means it can adapt its light intensity and light frequency to the requirements of the stadium and its special circumstances at a particular time.

You can put one of our LED systems on the pitch when it is completely in the sun or in the shade, or half and half and the system will adapt automatically to the changing light levels, so that the groundsman doesn't have to worry about this.

It is equipped with a lighting control unit which is able to take signals from sensors for temperature, humidity, windy or cloudy weather conditions from a climate computer and match that information to always change to the best light spectrum.

Another important benefit is that you can save money on electricity – on average it uses 35% less electricity, depending on the geographical location and the way it is used.

It has an ideal light spectrum with a different combination of colours for perfect growth, germination or faster growing for young plants.

It also offers a fungus and algae protection function to help control and protect from disease.

We have a separate system that emits only UV-C light to destroy diseases such as fungus and algae – not just block their growth but actually kill them – this is mounted on a tractor. With the LED system there is a UV programme in there as well that can stop the development of diseases in sports grass.

Is it correct that using this kind of technology is particularly beneficial to clubs in colder climates?

It is not specifically beneficial for those clubs. It can be used worldwide, in southern countries where the temperature is high we can have our infra-red light switched off automatically so that it does not give off any heat.

In colder climates we will use our infra-red heating from October until March. In both cases LED will be supported by the infra-red or not, depending on whether it is necessary. The LED itself will always function equally well.

How many grounds staff are normally needed to move the units around and also operate them?

When the units are on the pitch one person can handle the units with remote control. It can be moved quite easily by one person.

Has the system already been used by any sports clubs and if so, how pleased have they been with the results?

Yes. We have been working since 2016 with Rapid Vienna and FC Cologne and Schalke have now come on-board. Instead of buying just our LED systems, they have decided to acquire the integrated, automatic system that has five functions in it.

This system includes irrigation, LED lighting, infra-red for heating, a UV programme to block the growth of diseases and a fifth option which offers liquid fertiliser.

Schalke tested our LED technology extensively and their tests showed LED was the better system for good quality grass.

Then Schalke made a feasibility and operational cost analysis about using a number of our mobile LED units or opting for our automatic system integrated into the stadium structure, that spans the complete width of the pitch.

The analysis showed it was better to go immediately for the larger automatic system. It requires less storage and has lower operational costs. You can keep working below the system even when it is on the pitch. The system does not touch the turf at all. It spans across a width of at least 68 metres and can stretch to 80 metres. We have already had interest from other clubs interested in the integrated system.

Which countries or regions have you identified as offering good growth opportunities for you with this system?

As our system can be used worldwide without limitations, we see a global market. Being based in Europe, we of course look at European clubs and stadiums but we will look to expand into other regions such as Asia and the American continent. Our systems are compatible worldwide so it is our intention to be the global leader in lighting systems. ■