SUCCESS STORY *INDIVIDUAL SIGNAL LIGHTING*

DIANA LEDscale®

Photo: SYNTEGON

SYNTEGON
PROCESSING & PACKAGING

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Modern machine design with novel signaling solution.

An internal recommendation brought the team of Syntegon and DIANA together. „After the joint development of an individual sightglass light already had been successful, it was clear that we would also contact DIANA with our new idea," says Steffen Carbon, project manager at Syntegon. „In our modern machine design, we use a mineral material in which the signal light should also be completely integrated." A tricky challenge – just the right thing for DIANA.

Syntegon Technology GmbH: World leader in process and packaging technology for pharma & food

The former Robert Bosch Packaging Technology GmbH, headquartered in Waiblingen near Stuttgart, has been developing and producing intelligent solutions for the pharmaceutical and food industries for over 50 years. 6,100 employees at over 30 locations in more than 15 countries transform ideas and visions into sustainable and intelligent technologies. Syntegon's portfolio includes stand-alone machines, systems and services with the aim to contribute a better life for people around the world.

Challenging task and an extraordinary material

„We were just developing a bi-color sightglass light together with Syntegon and were therefore in a lively exchange when we first heard about the idea of an integrated signal light," reveals Development Manager Martin Weller from DIANA. „To illuminate a mineral material was an attractive task right from the start!"

In addition to the brightness, homogeneity and color of the light, the high requirements for hygiene, tightness and explosion protection, which are necessary for safe operation of the machines, had to be implemented.

Even the first prototype made it clear what an elegant solution was behind the idea: From the light on the back (fig. right) only the light strip for signalling is visible at the front (fig. left).

DIANA LEDscale®

If it is conceivable, it is also feasible.

The feasibility study began immediately after receiving the first material sample. The first step was to clarify whether the mineral material could be illuminated at all. And how high the level of illumination must be to meet the requirements of a signal light. The first prototype quickly made it clear that this light could be a perfect symbiosis of functionality and optical impression.

However, the designers at DIANA still had a lot of work to do. Among other things, the demands on the range of functions, colors and required illumination images necessitate many electronic components. But there was no space at all. Since additionally every shadow cast on the front of the operating panel was visible, so a very compact design had to be fitted into the filigree aluminum housing. After the second prototype all difficulties were eliminated. The first signal lights could be installed in the machines.

Practically not existing:
The signal light developed by DIANA is mounted behind the mineral material machine cover and illuminates it. So it is not visible when the machine is switched off.

Even more practical:
The non-porous and homogeneous surface is shock-resistant, light and food safe, acid, oil and heat resistant and easy to clean.

Photo: SYNTEGON

Of course, new developments raise unexpected questions. However, DIANA had always an answer and was only satisfied with the optimal solution.

Steffen Carbon, project manager at Syntegon Technology

Innovative packaging concept with individual signaling solution

The result was impressive. „So far we have received only positive feedback on our signal light. The signaling in conjunction with the mineral material is fully in line with our design philosophy and we are using it in our machines worldwide now," sums up Project Manager Carbon. „With the TPU paper form, fill and seal machine, we introduced a completely new and sustainable packaging concept. It has now even been awarded the German Packaging Prize.

„Design is also becoming increasingly important in mechanical engineering," agrees Martin Weller of DIANA. „Individual signaling and lighting solutions can have a decisive influence on the appearance of a machine and thus also on the image of a manufacturer. We are always pleased when we can help to implement the ideas of the designers and constructors, to provide the desired range of functions and to ensure high-quality execution".

Photos: SYNTEGON

Further information about intelligent process and packaging solutions for the pharmaceutical and food industries and Syntegon Technology GmbH can be found at **www.syntegon.com**. DIANA Electronic-Systeme informs you about individual signal lighting at **www.LEDscale.com**.