Romaco develops climate-friendly blister line
Sustainable production with the Unity 300

Romaco Noack's Unity 300 blister packaging line was developed strictly according to the principle "avoidance is better than reduction is better than compensation". The monobloc ships with an energy monitor and is available in a carbon-neutral version on request. Not only is this blister line energy efficient; it is moreover very compact, easy to use and extremely versatile.

At Romaco, certifications to ISO 14001, the environmental management system standard, and EcoVadis, the sustainability rating for global supply chains, are on the agenda. In addition, the pharmaceutical machinery manufacturer is following another approach: with its technologies, Romaco wants to enable its customers to produce more sustainably. The company is guided by the principle "avoidance is better than reduction is better than compensation". The new Unity 300 blister packaging line from Romaco Noack was developed strictly according to this precept.

No unnecessary energy wastage

For the first time, in order to avoid carbon dioxide emissions from the outset, the Unity 300 blister packaging line was equipped with an energy monitor that keeps a continuous watch on the machine's power and air consumption and reduces it when needed. The monitor has a standby mode which enables the machine's base load to be significantly reduced for the duration of product changes, for instance. As soon as the machine is at standstill, the intelligent system provides an active reminder to the operator on the HMI to switch to economy mode. This standby function has no negative effects on OEE (overall equipment effectiveness). The energy monitor is also capable of detecting carbon dioxide emissions from the machine and of taking the electricity supplier's energy mix into account in the calculation. The system thus simultaneously serves as a sustainability reporting instrument.

Reducing the carbon footprint

Carbon emissions cannot be completely avoided at the moment, which is why Romaco is endeavouring to at least reduce them as far as possible. Step one here is the size of the machine. As a general rule, the more space it needs, the more CO2 it emits, because operating a machine in a pharmaceutical cleanroom is extremely energy intensive. For this reason, the Unity 300 was designed to be as compact as possible and is actually less than eight metres long. The single-track blister line, which was specially developed for the low to medium speed segment, achieves a maximum output of 300 blisters and, depending on the cartoner, either 200 or 300 cartons per minute. The monobloc's 4.1-metre-long primary packaging unit has a particularly small footprint and features a prepared interface with the pharma wall. The option of integrating the Unity 300's forming foil reel inside the machine enables this footprint to be reduced even further.

The blister transfer from the rotary sealing machine to the continuous motion cartoner likewise takes place in a very small space. A rotating indexing wheel removes the punched blisters vertically and feeds them directly to the cartoner. To save energy, the suction cups of the shuttle are only ever active while blisters are being transferred. To cut down on the amount of space needed, stations like the in-process control (IPC) can be simply swung out, ensuring good access to the components behind them and leading to a compact line design. It was also possible to simplify format changes overall by reducing both the weight and the number of parts per format set and position them at an ergonomic working height.

Circular economy as a sustainability goal

In the interests of the circular economy, Romaco commits to taking back the Unity 300 free of charge at the end of its service life, either to refurbish it or to dispose of it properly. However, until that day comes, these robust machines are exceptionally durable and require virtually no maintenance. Romaco's quality and sustainability promise is underlined with a three-year warranty that includes all wearing parts. For example, the Unity 300 is the first machine of Romaco ever to ship with a housing made from 100% recycled Plexiglas. It is also suitable for producing sustainable packaging like paper blisters.

The Unity 300 boasts a broad array of potential applications to match which is an advantage for contract packaging manufacturers. This flexibility is partly a result of the very wide range of formats – designed for blisters from 60 to 150 mm long, 30 to 100 mm wide and 3 to 12 mm high. Up to 15 blisters can additionally be stacked and processed safely up to a height of 95 mm.

Offsetting as a last resort

Wherever carbon emissions are unavoidable, Romaco uses offsetting as a last resort. The Unity 300 is accordingly also available in a carbon-neutral version. All in all, 68 tons of carbon equivalents are emitted during the production and installation of the blister packaging line. These emissions can be fully compensated by purchasing a Gold Standard climate certificate – official confirmation that Romaco has bought a certified amount of CO2 bound in biomass.