

Application example

Reliably sealing tubular bag packaging

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SIEVING



Task

Packaging lettuce from 30 µm-thin tubular bag films up to 320 mm wide places high demands on the sealing unit. BOPP films (biaxially oriented polypropylene, molecular chains are stretched in two directions) are often used for food products. Both fast cycle times and tight seals in the event of possible product contamination in the sealing zone are equally necessary, as is the separation of the tubular bags during the sealing process. High process stability and minimal reject rates are essential. The sealing process must not affect products that are sensitive to heat.

Solution

The ultrasonic VFFS sealing module with two ultrasonic systems and digital MAG generators is used for this complex joining and separating task. The sealing module can be integrated into any vertical tubular bag machine. The system's cutting knife ensures a reliable cut in the clearances of the robust and rigid module. It is powered by a servomotor with an air-cushioned end position. The two sonotrodes, each 165 mm wide, are precisely positioned in the module. Each MAG generator has a maximum power of 2.4 kW at a frequency of 30 kHz.

Advantages of this configuration

The reliable mounting of the sonotrodes in the ultra-rigid sealing module guarantees perfect sealing quality, even with film thicknesses below 35 µm. The high-performance generators of the MAG series ensure minimum reject rates and maximum process reliability. Heat-sensitive foods are not affected by the ultrasonic technology and fast sealing times. Thanks to the highly dynamic control characteristics of the MAG generators, the highest cycle rates can be realized. Telsonic's VFFS sealing module is ideally suited for both new and retrofit applications in all commercially available, vertical VFFS tubular bag machines.



VFFS sealing module with clearance for cutting knife and water-cooled anvil