TELSONIC
ULTRASONICS

NEW

Bag Sealing Module – VFFS

Ultrasonics Enhance Sealing & Separation Operations On Tubular Bag Packaging

PLASTIC WELDING | METAL WELDING | CUTTING | CLEANING | SIEVING

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Many of the fresh products on the supermarket shelves such as fruit, salad, vegetables, potatoes, cheese and some liquids are presented in packaging produced from tubular film. Secure and reliable sealing is essential, especially in the case of food, if the products within the bag are to maintain their integrity and remain safe for consumption. The latest ultrasonic Bag Sealing Module – VFFS from Telsonic enhances the sealing and separation processes on tubular bag packaging whilst reducing film costs and increasing productivity levels.

Consistent and reliable sealing are essential attributes in any packaging application if quality and productivity levels are to be maintained. It goes without saying therefore that manufacturers will be quick to take advantage of technology developments which can enhance their packaging operations, especially if they can also reduce costs at the same time.
The new ultrasonic Bag Sealing Module – VFFS from Telsonic delivers a wide range of benefits to the sealing and separation operations on tubular bag packaging. The key attributes of this technology include the extremely rigid design of the sealing module which guarantees perfect sealing quality, even with film thicknesses below 35 µm.

The high-performance and dynamic control characteristics of the MAG generators, used across all of Telsonic's packaging technology, ensure minimal reject rates, maximum process reliability and highest cycle rates. Further benefits of the ultrasonic sealing process include the fact that heat-sensitive foods are not affected, as unlike thermo-sealing systems heat generation is kept to a minimum through the use of a water cooled anvil and the sealing cycle itself is fast.

A typical example of where this technology excels is in the packaging of lettuce within 35 µm BOPP (biaxially oriented polypropylene) tubular bag films up to a width of 320 mm. In applications such as this, short cycle times and tight seals are required, even in the event of any product contamination in the sealing zone. Equally important is the consistency and reliability of the separation of the tubular bags.

Telsonic's solution for this complex joining and separation task is based upon the ultrasonic Bag Sealing Module – VFFS. This unit incorporates two ultrasonic systems with 165 mm wide sonotrodes which have integrated cooling within the clamping unit plus digital MAG generators, each of which has a maximum output of 2.4 kW at a frequency of 30 kHz. The cutting knife can easily be integrated into the robust and rigid module to ensure a reliable cut. The sealing module which can be integrated into all standard VFFS tubular bag machines, either for new machines or as a retrofit, can be connected to a servomotor with an air-cushioned end position.

The design of Telsonic's Bag Sealing Module – VFFS provides enhanced mechanical stability for extended service life. As a digital platform users benefit from state of the art process control, a wide range of features together with high efficiency and performance levels. Built-in self-check routines and error logs, combined with the availability of fast remote service, ensures that downtime is kept to a minimum. Telsonic engineers and process specialists also work closely with customers from the initial concept stages of a project through component and module specification to installation and commissioning, providing the support needed to ensure a smooth transition to production.

Manufacturers adopting this fast and efficient technology will quickly realise a **wide range of benefits:**

Advantage of ultrasonic technology	Customer benefit
Fast start up	Reduced scrap
Short weld time	Greater throughput
Secure welding – even with product in the seam area	Less scrap and better quality
Minimal heating of sonotrodes	No damage to film or products from thermal effects
Low maintenance system	Much reduced maintenance costs
High energy efficiency	Lower energy consumption and reduced energy costs
Narrow sealing seams	Greater material utilisation and reduced costs