SMI Hall 6 booth S068

Smart packaging machine to be more competitive

SMI designs and manufactures bottling and packaging machine with an innovative design, equipped with IoT technology, in order to provide customers all over the world with smart solutions, able to satisfy their needs of competitiveness, production efficiency, operational flexibility, energy savings and management and monitoring simplicity of the whole production plant.

The LSK SF Ergon series arises from the need to provide an ad hoc machine for packing rigid containers in film only and consequently have available an extremely compact machine, easy to control and monitor. A model of the new LSK 30 SF Ergon will be showcased on the booth. The machine is equipped with rounded safety doors made of anodised aluminum, which let all the motors, featuring low-energy consumption, be placed externally compared to the mechanical groups they activate. The door closing system is equipped with a slow-down device and accompanies the door smoothly in its final phase of closure.

The process of packing in film is extremely fluid: on the machine infeed conveyor, equipped with low-friction chains made of thermoplastic material, loose containers are clustered in the desired format by a pneumatic device and electronically synchronised separating bars before accessing the film wrapping section and the shrink tunnel.

SMI offers a wide range of shrink tunnels, with technology to limit energy costs and guarantee maximum environmental compatibility. For instance, the new version of ST Ergon tunnels manage the distribution of hot air flow on all the surface of the forming pack efficiently and consistently, guaranteeing a high level of shrinking. Furthermore, at the tunnel outfeed, the pack undergoes an immediate cooling process, by means of an advanced ventilation system, this sets the shape, the appearance and rigidity to prevent deformation or breakage during the following packing stages. SMI shrink tunnels are designed to allow the operator to have easy access, in complete safety, to the internal parts of the system during maintenance and cleaning, which, compared to other traditional systems are much smaller.

The ovens of the ST Ergon series are available fuelled by electricity or by methane gas, where the necessary heat for shrinking the transiting packs is obtained by the combustion of methane rather than the special electrical resistances. The tunnels fuelled by electricity can be equipped with fibre glass chains (standard supply) or with metal chains (standard supply or optional according to the model of machine). Fibreglass hold the heat more efficiently, therefore, reducing energy consumption. Also, the film rarely leaves residue on this kind of chain.The metal chain releases more heat, therefore consumption is slightly higher, but at the same time it guarantees improved film sealing under the pack.

Laboratory tests show that, in countries where natural gas is available at convenient prices, the use of a methane fed shrink tunnel guarantees a saving of 60% compared to energy consumption of a traditional tunnel fuelled by electricity. The development of this new range of ST Ergon tunnels fuelled by gas began with this consideration, to offer innovative technology with low environmental impact, to customers who have a supply of methane gas at advantageous prices. This pack shrinking solution, which is highly technological, eco-sustainable and with a reduced environmental impact, can be combined with all the shrink wrappers and combined packers produced by SMI.

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