## beverage & packaging

PROCESSES AND PACKAGING



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www.pacprocess-india.com



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www.interpack.com



## **ALPHAMAC:** USE PLASTIC IN A SUSTAINABLE WAY



IphaMAC develops technologies for the circular economy,

bringing a concrete contribution to increase the use of recycled materials and to optimize the overall efficiency of its machines, giving users the possibility to produce with zero defects and in a sustainable way.

Plastic is and it will continue to be the most practical and cost-effective packaging for liquid products and with the global population growth, its use is set to increase even more in the next years.

AlphaMAC, as a machine manufacturer and technology developer, has put at the centre of its attention the actual trends and issues of plastic industry, designing a range of innovative equipment to help as much as possible its partners to decrease their operative costs and to deliver on the market products made in a sustainable way, keeping a cost competitive approach.

"There are many ways to use plastic in a sustainable way, processing for example bio-based or biodegradable materials to replace fossil, or using post consumers resins but also reducing the energy needed to produce and eliminating defects at each phase of the production chain."

Among the innovation contents of its technology, AlphaMAC engineers constantly works on the design of their proprietary extrusion head and screw profiles in order to process higher percentage of recycled material without suffering stability process issues and allowing fast color changing time. Not only, a specific part of development is also dedicated to the design of new shapes and new closures for the bottles of the future, with lower weight and higher mechanical and aesthetic performances.

AlphaMAC full-electric technology is the result of a cluster of advanced solutions, reaching a very high energy efficiency not only in terms of power consumption but also in regards to compressed air and water cooling requirements and Alpha Series confirms its ambition to represent the evolution of at least two generations



of full electric solutions designed in the past.

"People want to feel green buying products which are packed in renewable solutions and this brings plastic converters to the necessity to upgrade their existing machines with co-extrusion packages or in some cases to invest on new machines.

The difficulty for the bottles manufacturer is to use recycled and new materials reaching the same level of quality and at the same price. It's important for them to work together with people which have technical expertise, financial resources and which know how to optimize their processes for this goal"

A fundamental tool which has become integral part of the blow-moulding machine is the "Zero-Defect-Objective", a quality control system which AlphaMAC has developed to check the quality of the containers before the transport to a warehouse or to a filling line. The system includes leak testers, visual camera and weight control which detects black dots and verify primary parameters such as dimensions, neck ovality, presence of flash.

The system, which collects both machine production and product quality data, is integrated to the machine HMI and is available as a web-based record, allowing a continuous improvement of the production processes.

The application of the concept "Industry 4.0" is complemented by the availability of a sophisticated "Product Traceability" system that can identify every single step of the production and logistics process of the individual container and it can trace back to the related data.

The importance to invest in equipment with a high level of quality and technology innovation becomes even more important when market competitiveness requires an increase in Overall Equipment Efficiency. The new generation of Alpha Series machines





has achieved one of the best OEE value in the segment thanks to the high overall quality of its components and thanks to a state-of-the-art software that includes a predictive maintenance program, linked to a statistical data collection system.

"Our customers have to deliver their products without having the concern to think about the efficiency of our machines, and that's how we designed them."

www.alphamac.it

