

ITALIAN PLASTICS & RUBBER PROCESSING MACHINERY INDUSTRY ~ NEWS

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PIATTAFORMA INDIA PROJECT

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ALL-ROUND INNOVATION IN BLOW MOULDING

At NPE 2024 (Orlando, FL, USA), ST BLOWMOULDING showcased its innovative solutions in technical blow moulding machinery segment, with accumulator head technology. New solutions have been implemented to develop a new product line of dual head machines: highly automated and intelligent control panel, optimised material usage, the lowest energy consumption on the market and the highest possible OEE (Overall Equipment Efficiency).

The ST team in the USA focuses on machine retrofits. This activity has already been very successful, with major electronic and software upgrades carried out on both ST BLOWMOULDING and competitor machines, both single and dual head. The new electric clamping unit, to be launched in 2022 for machines up to 120 tonnes, takes ST to new heights. Together with ST's own adiabatic extruders and all other energy saving solutions, ST is now the benchmark in the blow moulding industry when it comes to energy consumption of machines. In fact, ST BLOWMOULDING is at the forefront of this trend: since 2012, it has been the only blow-moulding machine manufacturer to use adiabatic extruders on a large scale. Their special screw and barrel design ensures gentle plasticising without overheating the melt. In addition, a double layer of barrel insulation reduces heat dissipation by up to 10 times compared to a conventional extruder. Today, ST BLOWMOULDING machines exceed the maximum energy efficiency according to Euromap 46.1 (class 10: < 0.13 kWh/lbs), even for large extrusion blow moulding machines for industrial applications.

Indeed, industrial packaging is becoming a major business area for the company. New concepts in continuous extrusion technology and highly productive machines were implemented and sold for large containers, in particular L-ring drums and IBCs. New multilayer solutions are part of ST's major development, looking to the future of recycled plastics and the use of PCR and PIR. Multilayer technologies are now available in either continuous extrusion or accumulator head processes.



For continuous extrusion, the company continues to work closely with W. Müller. For discontinuous extrusion, the new accumulator heads are equipped with two (or optionally three) extruders, each feeding a separate melt channel. A new design of the flow channels significantly improves the balance of the layers, resulting in a viable solution for many two-layer (or either three-layer) applications. And if an extra layer is required, Outer Coating Technology - with a separate accumulator chamber - is also available.

As well as saving energy and recycling plastic, using less raw material is a key benefit for both the environment and customers. This is where foam technology comes in. This technology creates a foamed structure in the blown part using a neutral gas (N₂ or CO₂) and a nucleating agent. The density reduction results in lighter parts, raw material savings and better thermal and acoustic insulation. ST adiabatic extruders can be pre-arranged to supply the gas for material foaming.

New frontiers are also being explored in the development of advanced solutions for composite pressure vessels, including LPG, CNG and hydrogen. The future of climate protection is moving towards hydrogen as an energy source. ST BLOWMOULDING is committed to playing a leading role in this challenge by developing technologies for blow moulding hydrogen liners: a perfect match between expertise and market needs.

Not to mention that ST continues to maintain its market and technology leadership in the suction blow moulding segment with new and advanced solutions specifically designed for the automotive industry, especially in the area of coolant lines for electric vehicles. Finally, ST has always paid great attention to machine ergonomics and operator friendliness. This also goes hand in hand with the need to reduce overall machine downtime. That's why the company has developed several solutions for fast head and mould changeover, including the advanced and patented hands-free AHC (Automatic Head-tooling Changeover) and other innovative solutions for small and large accumulator heads.

www.st-blowmoulding.com

The project Piattaforma India has been promoted by UCIMU – Association of Italian Machine Tools Manufacturers and AMAPLAST – Italian Plastics and Rubber Processing Machinery and Moulds Manufacturers Association. The two associations agreed on the idea that promoting a network of associations and entrepreneurs who have developed knowledge and experience on the Indian market, can be useful in favoring of new paths of development for business. The Indian companies who are interested to form JV, cooperation, technical tie up, purchase machinery etc from/with Italian companies can contact below mentioned address for any assistance:

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