Bandera, from Busto Arsizio in Italy, presents an innovative system for the extrusion of co-ex blown films in five layers. Various films from a number of materials can be processed – all made possible by a single machine.

In many sectors already a market leader with its lines, Bandera faced a really big challenge this time around: The company aimed to offer the most versatile line possible with optimum outputs for extremely strict thickness tolerances. And this for a number of very different production plants and an extensive range of raw material components, but still allowing quick production changes.

Bandera’s new five-layer top model accomplishes all of this. This co-ex blow-molding line is the perfect solution for customers who want to process both PE and barrier films with symmetrical or asymmetrical structure using the same line.

Flexibility is key

The machine has a gravimetric feeding system capable of processing a total of 20 components. The extrusion unit consists of a central TR 50 extruder and four TR 65 side extruders driven by highly efficient, energy-saving Simotics SD motors from the 1LG6 series. The co-extrusion head with screw and side feed has a 400-mm-diameter nozzle. A specially shaped cooling ring ensures that the air flow has the ideal effect on the blown film. Highly reliable and compact Simotics T-1FW3 torque motors guarantee low operating currents for the material discharge. A special wear-resistant, nonstick coating on all rollers and parts coming into contact with the film permits processing of extremely thin and sticky films.

In the final process section, a double winder is also driven by Simotics T-1FW3 torque motors in a back-to-back arrangement with different operating modes. The enhanced IBC blown film cooling system is at the heart of the system. Its custom-designed control software is capable of processing complex variables. For example, production parameters can be modified according to any ambient conditions. This means 100% stability of the blown film and the manufacture of perfect rolls. It also prevents waste and ensures precise monitoring of film width.

Electronic and electrical components by Siemens S.p.A.

Automation of the line is controlled by a Siemens Simatic S7-300; its Profinet-based network ensures maximum flexibility, extensive decentralization, less wiring, and simplified maintenance of electrics and electronics.

The HMI features a touchscreen panel PC by Siemens with high-resolution color display. The line monitoring system also supplied by Siemens can be easily linked to the operator’s network, and enables remote visualization and export of the production data.

INFO AND CONTACT:
siemens.com/plastics
carlo.cendali@siemens.com