

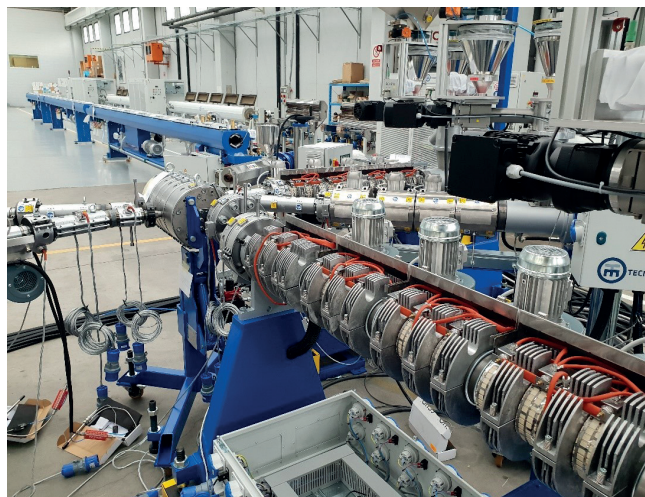
NEWS

Latest developments by Tecnomatic

Enhanced performances in XPE and PE-RT multilayer pipe extrusion

Domestic plastic pipes have experimented a significant increment in their use in the market. The advances in research and development of materials have made nowadays the plastic pipes one of the solutions to choose for the water supply, due to the economic and balance that they represent. The advantages offered by plastic pipes are, among others, the absence of corrosion and the resistance to many chemical products. They are flexible and easy to install, they can be joined by fusion, and they are light, which favours their transport and handling.

Many years of experience in supplying lines for multilayer pipes place Tecnomatic products amongst those most reliable and performing for producing structural pipes for such applications. Nonetheless the company has not stopped to innovate and has recently delivered



The assembling of the high-speed 5-layer line

a multi-purpose line to a main European processor for producing both PE-RT and XPE pipes with five layers.

The key component of the line is a further developed model of the Athena die-head series. Based on a radial distributors design, it has been optimized

with slight modification to reach even more flexibility and accuracy in the distribution, especially important to shape the EVOH and adhesive into very thin and uniform layers.

The radial distributors do not have any dead zones or edges where material could stop and

grant an easy cleaning and rapid assembling/disassembling operation. Radial spirals allow low pressure losses and high flexibility in terms of layers structure (thick or thin layers) and number of layers, while their short flow path leads to reduced residence time and rapid material and colour changes.

The line, which has a working range from 8 to 32 mm, is characterized by performance up to 60 m/min for the five layers in XPE or PE-RT, but it has also the peculiarity to work PE pipes in two layers up to 63 mm, by means of an additional die-head Venus Multi 2.

To reach such high performance every part of the line has been studied in minute detail. The extrusion line configuration consists in a main extruder Atlas 60.30 Evo, part of the revised series of extruder in 30 L/D which has been further optimized for higher output, melt homogeneity and energy consumption, while coextruders Mizar and Atlas 30 are used for adhesive, EVOH and external layers. All the extruders work in synchronization mode and are integrated and fed by a gravimetric system for a total of eight dosing components. An ultrasonic wall thickness station continuously controls all the pipe parameters, as eccentricity, wall thickness, diameter and ovality during the production process to ensure a top-quality pipe. To manage the high-speed coiling, the line is completed with a fully automatic coiler of the company FB Balzanelli, especially designed to coil both PE-RT, XPE and PE pipes. ■

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Athena five-layer die-head

