



IMAGE: TECNOMATIC

*Recent extruder developments include a new extrusion line to make tapered medical tubing, a high-speed machinery range and a line to make reel support cores using recycled materials*

# Line producer: latest extruder developments

Extruder developments can encompass a range of areas - from the design of the screw and barrel through the ability to save energy and raise product quality.

**Tecnomatic** has launched its latest Evo series of extruders with L/D ratios of 37 and 40.

The company says that the series is a "major evolution" in its extruder technology - with an overhauled screw geometry and newly designed spiral feed-bush. The development will help to optimise plasticisation, enhance material homogeneity and raise energy efficiency, says Tecnomatic.

"The Evo series is a significant leap forward, yet maintains the exceptional performance levels our customers expect," said Massimiliano Vailati, sales director at Tecnomatic. "We've developed an extruder that exceeds the capabilities of its predecessors."

Tecnomatic says it has re-engineered the screw geometry using advanced engineering principles and state-of-the-art materials. This enhances the plasticisation process, for superior melt quality and high-quality extruded products, it says.

In addition, the spiral feed-bush helps to improve the extruder's overall performance. By regulating material flow into the screw, it ensures consistent, uniform feeding. This improves product homogeneity, reduces output variations and raises

operational efficiency - for less waste and optimised production.

A core objective of the Evo series is to deliver energy savings, which Tecnomatic says is of growing importance. The redesigned components help to reduce operational costs - and environmental footprint, it says.

## Recycled cores

Tecnomatic has also teamed up with Italgreen - an artificial grass company - to introduce a new production line to make reel support cores.

The new line reuses scraps from artificial grass production, helping to minimise waste and promote circularity in the manufacturing process. It uses a number of Tecnomatic's technologies, including its Atlas series 75.30 extruder, anti-humidity volumetric dosing system, Venus 160 die-head and downstream equipment.

The Atlas extruder plays a pivotal role in processing the recycled scraps from the artificial grass production process. The extruder efficiently transforms the reclaimed materials into the raw material needed to produce reel support cores. This reduces the need for virgin raw materials, helping to conserve natural resources and lower overall environmental impact.

Consistency in material properties is essential to

**Main image: Tecnomatic's Evo series of extruders is now available with L/D ratios of 37 and 40**

**Right:  
Tecnomatic  
takes scraps  
from artificial  
grass produc-  
tion and uses  
an Atlas 75.30  
extruder to  
make new reel  
support cores**



IMAGE: TECNOMATIC

produce high-quality reel support cores. To do this, Tecnomatic adds an anti-humidity volumetric dosing system into the line. This accurately measures and regulates the input of recyclate, preventing fluctuations in material properties due to moisture content.

The Venus 160 die-head is also critical, being responsible for shaping the extruded material into the desired core dimensions. The technology precisely controls the core's diameter and thickness, ensuring consistency across the process. In addition, the die-head's versatility allows for the production of various core sizes up to 130mm.