

Communication – August 2021

Multilayer Forming and Welding Line up to 63 mm OD

THE Machines presents its latest MFWL 063 line (*Multilayer Forming and Welding Line up to 63 mm OD*), for the production of multilayer composite plastic/metal/plastic pipes. The line features the latest in user-friendly operating line controls and most important key end-product quality indicators.

In the past decade the evolution and transformation in artificial intelligence, real-time data collection, Industry 4.0 and robotics have been playing an ever increasing role in tube and pipe production plants worldwide.

Having on-board a fully integrated, easy-to-understand process and quality monitoring and management system is a must in today's manufacturing environment.

THE's PCS 400 XM system combines all In-One the vital process quality monitors from plastic inner tube and inner adhesive extrusion, metal tape handling, forming and laser welding as well as the final outer layer co-extrusion.

Detecting, monitoring and correcting potential quality anomalies such as inner pipe wall thickness variations, over-extension of metal tapes, metal tape weld defects, outer polymer layer wall thickness variations and out of specification end-product roundness can thus be avoided and eliminated.

The system allows for smart analysis, real-time monitoring, simple visualization and alarm alerts both on screen and acoustic. This quality tool provides rapid analysis, reporting and quick decision making to minimize and eliminate production waste and optimize all material usage.

All line and product data can be uploaded into customer own smart manufacturing solutions and track and trace programs.

The process and monitoring instrumentation used such as for polymer melt control, belt tension control, near and far field eddy current testing, pipe extrusion process equipment and pipe roundness control are all sourced from world leading suppliers and have been fully integrated by THE Machines into a single PCS XM system. The man-machine interface is user-friendly and features satellite monitoring and control units located at multiple points along the line for quick intervention.

Available on  YouTube <https://www.youtube.com/watch?v=m3bK2dEL1wU>



MFWL 063-5L, configuration	
Pipe outer diameter	16 mm – 63 mm
Total pipe wall thickness	2.0 mm – 6.00 mm
Tape thickness metal min/max	Alu 0.15 mm – 0.60 mm (or on request) Stainless Steel 0.10 mm – 0.30 mm
Inner and outer layers material	PE-HD / PE-RT
Production speed	up to 60 m/min (subject to end-product dimensions)

For further details, technologies and components used in the system please contact THE Machines Yvonand SA at info@the-machines.ch