



# INDUSTRY 4.0

AVANT-GARDE FEATURES BOOST PRODUCTION OF PLASTIC PIPES EXTRUSION PLANTS.

The global market is constantly evolving. Therefore, each company should have a department dedicated exclusively to R&D on a full-time basis to keep abreast of the numerous ongoing upgrades.

This is one of the challenges that Tecnomatic wants to add to its 'must do' list, and focusing on Industry 4.0 is and will continue to be one of the major objectives of this department.

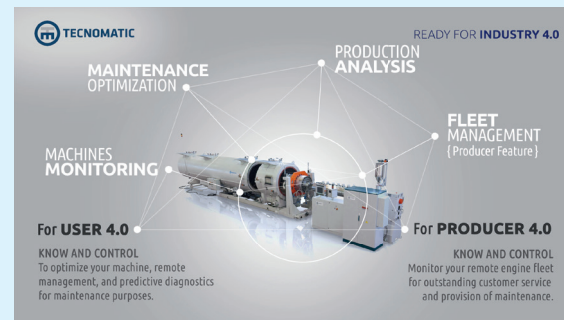
Constant technical improvements are essential in the field of extrusion and combined with Industry 4.0 will leverage the full potential of pipe extrusion.

The 'Fourth Industrial Revolution' is having a very strong impact on the ways companies manage industrial processes, and Tecnomatic is actively participating in it; in fact, in addition to introducing a new control system in 2018, characterised by the latest-generation hardware and software, Tecnomatic has been able to bring to the market the most sophisticated and modern system, following meticulous, close-knit teamwork. This dedicated software, called PIPE 4.0, facilitates all preventive maintenance and records machine efficiency. As well as enabling manufacturers to monitor all production activities, it also provides precise and timely data on order management, production phases, and estimating and calculating costs. Data

can be easily analysed thanks to the efficiency indicators (KPIs), which are accessible from any PC, smartphone or tablet and can be queried at any time or at established intervals, from anywhere, due to Cloud technology.

Pipe manufacturers are always striving for optimum performance and output whilst simultaneously trying to limit the different kinds of costs and waste. The PIPE 4.0 software is able to achieve this by:

- Predictive lines management, which maximises lines utilisation and minimises unplanned downtime; optimises maintenance activities planning and scheduling; reduces failures and downtime; and generates alerts and recommendations (prediction model).
- Process management and control, which minimises production variability and improves quality by addressing production on the most efficient lines according to the kind of pipes produced.
- Energy management, which reduces costs through monitoring for line and process.
- Production analysis, which monitors lines, processes, people and products on a continuous real-time basis, and displays KPIs and usage reports.
- Production simulation, which includes manufacturing and downtime planning and cost forecasts.



- Production forecasting, which adjusts production schedules in line with changing customer needs and raw material availability.
- Safety management, in which connected technologies can help companies in continuously monitoring and recording products and quality for each produced lot, as well as any generated waste (records of dimensional changes, temperature instability, breakdowns).

Currently, Tecnomatic's PIPE 4.0 system is the most cutting-edge software for plastic pipes extrusion. Certain that it will be essential to better face the ongoing Fourth Industrial Revolution, Tecnomatic has already made it available on the market. Positive customer feedback relating to improved plastic pipes extrusion, due to better monitoring and management, is what gives Tecnomatic the certainty that it is heading in the right direction.

