EUROSATORY Paris, France

WFL MILLTURN Technologies Supporting the Next Generation of Defence Manufacturing Capabilities.

The defence industry is entering a new industrial era. Faced with increasing production requirements, geopolitical tensions, and the need to reshore strategic manufacturing capabilities within Europe, manufacturers must now produce faster, locally, and with complete process control.

The challenge is no longer limited to production volumes. Components are becoming increasingly complex, tolerances tighter, and manufacturing requirements more demanding. At the same time, production facilities must contend with rising real estate costs, a shortage of skilled labour, and ever-shorter delivery times.

Designed for Automated Production Without Compromise

In this environment, automation has become a major driver of competitiveness. For many years, WFL has been developing solutions capable of addressing this new industrial reality through a comprehensive approach that combines MILLTURN machines, automation systems, software solutions, and complete process expertise.

The objective is clear: enable manufacturers to produce more with a smaller footprint, fewer operators, and maximum process reliability.

Based on the principle of *"Clamp once – Machine complete"*, WFL multifunctional MILLTURN machines consolidate multiple complex operations on a single platform. Turning, milling, deep-hole drilling, internal machining, in-process measurement, and specialised technologies can all be performed in a single setup.

This approach significantly reduces part handling, minimises the risk of human error, and eliminates non-productive time. It also enables the design of far more compact manufacturing facilities. For sure, an important strategic advantage at a time when industrial infrastructure costs continue to rise throughout Europe.

WFL's automation solutions go even further through the integration of robots, gantry systems, automated storage systems, and complete manufacturing cells capable of supporting continuous 24/7 production with minimal human intervention.

Shaping Tomorrow's Defence Capabilities

The evolution of defence technologies is fundamentally transforming manufacturing requirements. Components must now incorporate increasingly complex geometries, lightweight structures, thin-wall designs, and a growing number of functional features.

The internal machining of cylindrical components perfectly illustrates this trend. Missile bodies, complex tubes, and artillery shell-type components impose particularly demanding requirements in terms of rigidity, thermal stability, chip evacuation, and geometric accuracy.

In this field, WFL has developed a particularly advanced level of expertise. The technologies developed by the Austrian machine tool manufacturer make it possible to combine internal and external machining operations on a single machine while maintaining exceptional alignment accuracy and repeatability.

Through the use of special prismatic tools, deep-hole drilling technologies, and dedicated internal machining solutions, complex features can be produced directly inside tubes. Technical grooves, positioning slots, internal pockets, and sophisticated internal geometries can all be machined in a fully automated process.

This is where the full potential of the MILLTURN concept becomes evident. A single platform can replace several conventional machine tools while delivering a high level of flexibility and productivity. This evolution also addresses a major industrial challenge: the ability to rapidly manufacture large quantities of components while minimizing material waste and ensuring process security in an increasingly uncertain industrial environment.

Reliability Is a Part of National Security

Within the security sector, process reliability becomes a critical requirement. Every component must meet exceptionally high standards of precision, repeatability, and traceability.

WFL platforms have been engineered with this objective in mind. High-rigidity machine structures, integrated measurement systems, intelligent process monitoring through iControl+, and Crash Guard Studio simulation technology all contribute to securing production while reducing the risks of machine downtime and collisions.

This level of control becomes essential in automated, unattended manufacturing environments where production continuity directly impacts industrial capacity. WFL also differentiates itself through its ability to deliver complete manufacturing solutions. The company does not simply supply a machine tool but provides a comprehensive production environment integrating automation, software, process engineering support, and technical service.

For defence manufacturers, this represents a significant advantage: a single partner capable of delivering a fully integrated, scalable, turnkey manufacturing solution.

New Investments Driving European Manufacturing Growth

The current acceleration of security investments is also helping European manufacturers strengthen their industrial capabilities. The production capacities developed today will ultimately benefit other strategic sectors such as aerospace, space, energy, and high-precision manufacturing.

This is one of the key strengths of WFL platforms: flexibility. The same equipment capable of meeting demanding defence requirements can subsequently be adapted to other complex industrial applications without compromising the original investment.

As Europe seeks to reinforce its industrial sovereignty, manufacturing capability is once again becoming a strategic priority. In this transformation, complete machining and automation are emerging as essential industrial technologies.

WFL looks forward to welcoming visitors to the Austrian Pavilion during Eurosatory 2026 in Paris, Hall 5A – Booth JK178.

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Picture 1 :

Internal machining with WFL's high-performance angular head with automatic tool change.

Picture 2 :

This 12-meter-long MILLTURN M100 features a special configuration designed for machining gun barrels.

Photo 3 :

One of WFL's strengths is its ability to offer both external and internal machining of shells, enabling further development of this ammunition.

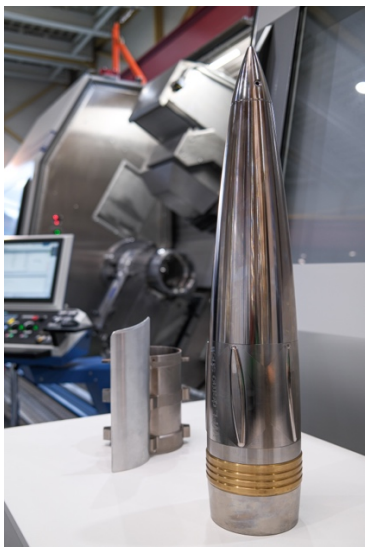

Photo 4 :

The ability to operate 24/7 is essential in the defense industry, and WFL offers comprehensive automation solutions.