

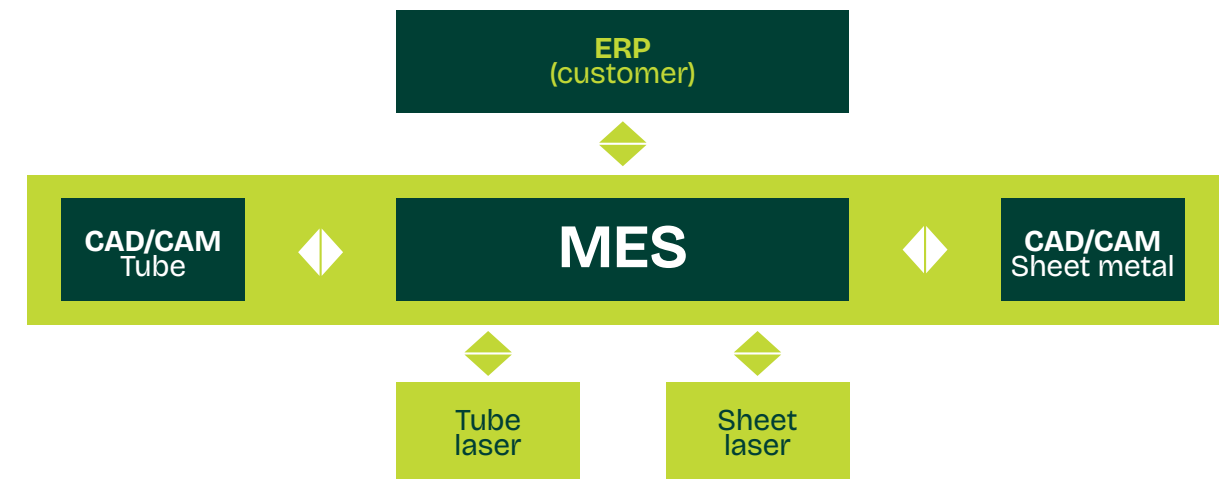
# BLM GROUP'S MES: READY FOR NEW CHALLENGES



## From machines to complete manufacturing ecosystems

Long gone are the days when a machine was found working in isolation on the shop floor: the application of digitization to the world of industry and the consequent "Industry 4.0" revolution have transformed the organization of production systems, giving rise to interconnected networks of systems that concur, each for its part, to manage the production flow in its entirety. At the heart of this complex architecture are MESS (Manufacturing Execution Systems), which act as a bridge between the processing requests issued by an ERP and the production capabilities of production centers (machines), while coordinating with CAD/CAM systems, which process their technical and technological characteristics. BLM GROUP understands the key role software

plays in the management and control of a production chain, to the point that it has established a Division directed by Paolo Benatti dedicated to the Research and Development of software solutions, which complement and enrich the potential of machines. "Our software solutions are developed with the experience and particularity of those who know how production workshops work and what their needs are," says Paolo, the Software Division Technical Director, who then goes on to describe BLM GROUP's MES: "Our MES was developed in synergy with the machines, the exchange of data takes place in real time and is facilitated by the use of a common, stable and well-defined protocol. The data returned by the machines are collected and analyzed, building a statistical base that over time, increases the reliability of processing time estimates."





**The advantages of BLM GROUP's MES are many**  
"First, the MES hides the technological differences of the various connected machines from the user, presenting a common behavioral model and thus facilitating the operator's task. By dialoguing with a possible ERP system via Web Services, in addition to traditional file exchange modes, it enables deeper and more complete integration. Even when there are multiple workstations in the office and multiple machines on the shop floor, uniqueness and consistency in information is always guaranteed because all data exchanged in the system is collected in a common repository. In addition, the system is scalable, and the addition of a new BLM GROUP machine in the customer's fleet is done easily and naturally."

**A fast and straightforward interface**  
"In addition to the applications used on the technical office workstations (clients), BLM GROUP's MES has an interactive Cockpit, built with web technology and designed to provide a fast and direct interface on the shop floor to show the status of machines, materials and active production batches."

**From now on, not only tube!**  
"The most recent big news concerning our MES is the extension of management to sheet metal solutions, thus embracing BLM GROUP's entire portfolio of proposals, which also includes sawing machines, tube benders, wire benders and robotic cutting cells. Importantly, key aspects such as a single communication interface with ERP, a single order and job management system, a single planning system, and a single Cockpit are maintained. The integration enables greater efficiency and speed in managing production processes. Thanks to BLM GROUP's MES, the customer can constantly monitor the status of machines, control production in real time, and intervene promptly in case of

any problems, for example, by redirecting production from a machine stopped for maintenance to another one that is available. The advantage of having a single management system is that the customer has a complete and unified view of all production processes, regardless of the technology used. This allows for greater flexibility and ease in the planning and execution of jobs. Thanks to the enriched communication interface for unified tube and sheet metal management, the customer can interact directly with orders, monitor production progress, manage any rejects, preparing corresponding completion orders if necessary, and receive notifications in real time. This innovation allows our machines to be increasingly integrated into an industry 4.0 system. In conclusion, the extension of production management to sheet metal laser cutting is an important step forward in our integrated solution offering. Thanks to BLM GROUP's MES, customers can benefit from more efficient, flexible and integrated management of their production for both tube and sheet metal technologies."

**Machine-software synergy: a single ecosystem**  
"The synergy between office and machine software in our MES system offers numerous advantages. One of them is the ability to get real-time information from the machine through an enriched control panel. In this way, machine performance can be constantly monitored, and because the MES and the machine communicate with each other, decisions made by the office can be implemented directly in the machine. For example, the machine operator can see the list of jobs, updated in real time, to be done in order of priority, based on the schedule decided in the office, so that delivery dates are met. In addition, when a new job is created, the MES is able to provide estimates based on statistical data, as it has

all the historical memory of how the machine has worked in the past, ensuring high accuracy of production time and cost estimates. Data collection is processed in the MES system to obtain useful values and overviews for analyzing efficiency and productivity. This information makes it possible to identify any inefficiencies or areas for improvement and make reasoning based on hard data."

**Ease of use**  
"The manufacturing MES we provide is user friendly and intuitive in all technologies including in laser sheet metal cutting: same interface and same "look and feel" that the customer already knows and therefore does not have to learn anything new. In short, we extend and adapt the technology, but the management software remains the same. This way, when a customer buys a

combined machine, he can easily make use of the MES he already uses for both tube and sheet metal cutting processes."

**ProTube becomes Prometheus**  
ProTube is the MES system developed by BLM GROUP's Software Division for production management of its tube processing, cutting and bending machines, with an awareness of the ever-increasing importance of software in the development of advanced manufacturing solutions. "Today, this system extends to embrace sheet metal processing as well, forming a single platform for all the group's production lines. For this reason, "ProTube" will change its name to "Prometheus," while keeping its functionality and advantages unchanged.

