

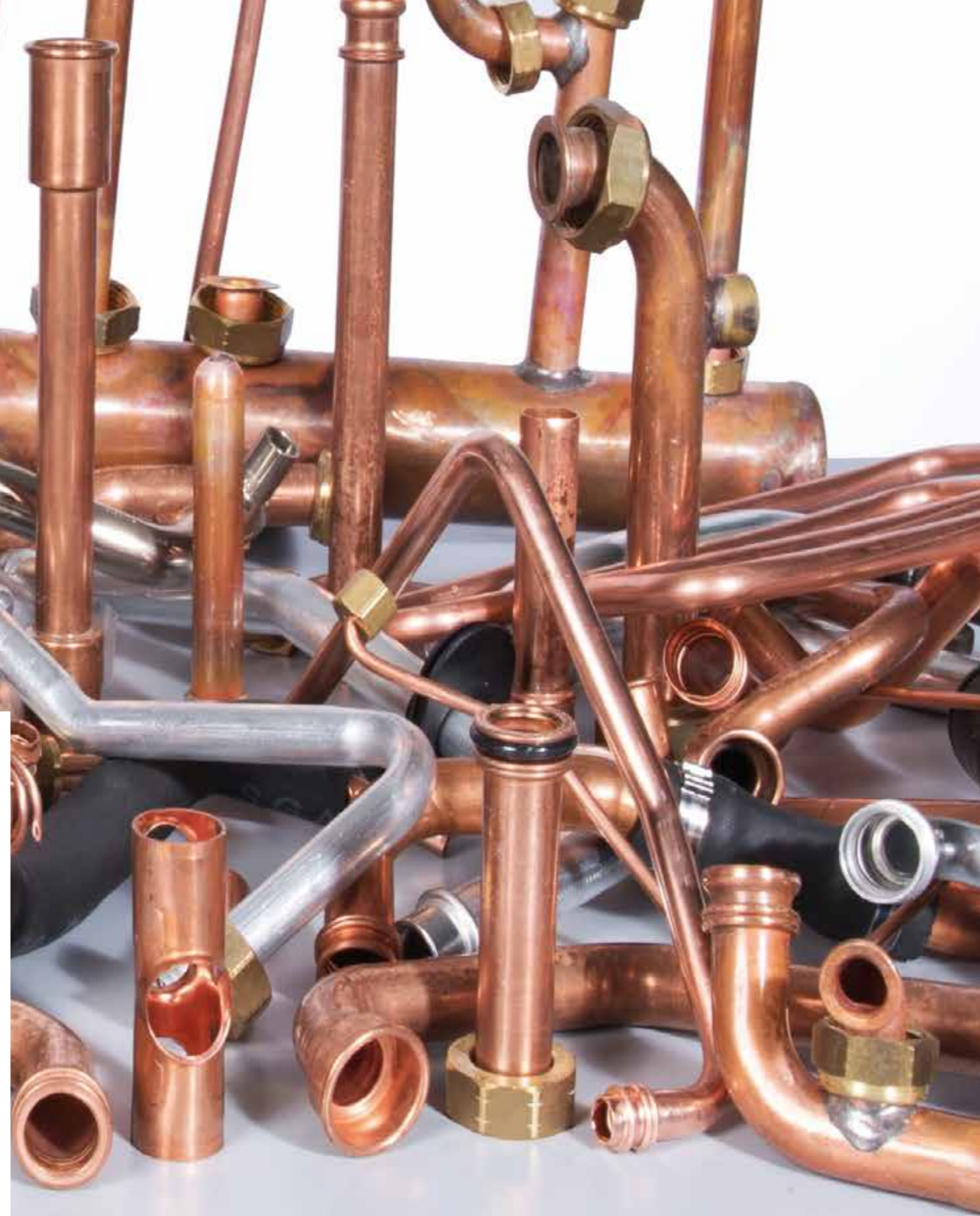


JOB SHOP

TARGET: ZERO REJECTS

LCM

In a lovely village near Ancona, industrial plants with a solid and deeply rooted working culture are found among mildly sloped hills. Among them is LCM Filottrano, a company manufacturing pipe elements, distinguished by the work organization and workmanship that defines its success.



LCM is a family-owned company specializing in manufacturing copper and aluminum pipe components for different sectors as a subcontractor. Mr. Ivo Carloni, the founder, and his wife are the owners of the enterprise. But the company's rudder is already in the hands of the next generation, consisting of the owners' three children: Ambra, who handles the administrative end of orders and deliveries; Eliseo, who manages the production department; and Andrea, who manages sales.

"The company was founded as a craftsman's enterprise in 1972. In 1985, a nearby company that decided to subcontract manufacturing of heat exchangers with us equipped us with the machinery and materials to perform such work. Since then, we began to learn the trade of processing metal pipe and became real experts", explains Andrea Carloni. "When manufacturing of the heat exchangers ended, LCM was already fully specialized in pipe processing and manufactured elements for various sectors". Today, LCM employs 25 workers split between the new plant, with an area of 2,600 square meters where all pipe production takes place, and the original plant with an area of about 1,500 square meters where press dies and tools for supporting main production are manufactured".

EXPORT QUALITY

Italy is certainly the first market for LCM, but the number of international clients is leading the company to develop export activity. "We regularly supply over 80 clients from different sectors: heating, air conditioning, beverages, water treatment and automation. We manufacture spirals, serpentine, collectors, practically anything you can get from pipe; and our parts can be found in coffee machines, furnaces, air conditioners and refrigerators sold around the world", Carloni states. Diversification of the sectors it supplies has allowed the company to limit the production stagnation effect, making continuity possible. But there isn't just the Italian market.

"We mainly work on copper and aluminum pipes with diameters from 4 mm to 54 mm, and with different thicknesses. Manufacturing is continuous, including Sundays, and the reliability of the machine park at LCM is essential. In these terms, the BLM GROUP gave us a guarantee. I don't trust words, but I look at the numbers. For me, the PLAUNO machine of 1995, which remains operational after having worked sixty thousand hours and is still used today, at production peaks, is an example of reliability".

LCM's plant has two fully automated production lines, from reel to final element, and over 15 machines bearing the BLM brand.

“We mount another reel and come back when it's time to mount a new one.”

“There are no standstills in the machine's work”, explains Carloni. 4-RUNNER, a machine bought for a specific task, is the latest addition. “We purchased a 4-RUNNER machine for precise pipe forming. In the past we used an old PLANET machine from BLM, but it had hydraulic axes and the final forming stage did not have the required reliability, so it was performed on the TUBE-FORM machine.

Electrical axes offer benefits in the form of greater precision, thanks to which, work can be performed completely on the 4-RUNNER machine in one stage.

ZERO REJECTS TO LIMIT COSTS

LCM is a relatively small company, but it operates like a modern organization with very clear goals. “The target we are striving to reach is zero rejects, which will make it possible to limit costs, and is a significant factor in the company's profits. This is why it would be good to introduce an additional stage to the production process, increasing its reliability and making it possible to avoid rejects and standstills. The entire process is currently being optimized, not just one stage”. The subject of quality control is the most important and is being managed by a young but experienced unit. Controls are usually conducted over the course of the entire production cycle, and there have been results. “Today, thanks to quality, we are maintaining a level below 100 ppm (less than 100 rejects per million), and this value is confirmed by our customers' satisfaction. Defects are unacceptable.”

A philosophy much appreciated by the clients. Part of the competition is focused on high numbers, but not LCM. “Our lots consist of anywhere from 50 to 20,000 pieces, and we still have clients that have been working with us since 1985. We stayed by their side during hard times, which made it possible to create an important relationship of cooperation. Besides customer satisfaction and many other methods of studying recipients' satisfaction, the fact that

we have not lost a single client is also not without significance”, concludes a pleased Carloni.

LCM often caters to the needs of clients, serving with advice on industrial details that yield savings.

Cost control is a central theme. “When you manufacture thousands of elements a day, not just the processing stage is important, but the entire production process, from ordering materials to delivery of goods. Everything must be optimized. All operations ordered from the outside must be coordinated with internal production. The client pays for processing, not for order input or handling and planning”.

The simplicity of programming the 4-RUNNER machine is also appreciated for this reason. “At the workshop, we knew the VGP3D programming system from BLM well, but today, even a new guy who trained only on a 4-RUNNER machine is able to program elements. The stage of mounting equipment also seems to be simple and easy”, Carloni adds.

SHARING THE COMPANY'S KNOWLEDGE

“We operate on the basis of procedures, so it is necessary to share knowledge that could otherwise be forgotten inside the company. Procedures are our way of sharing knowledge from unit to company. Everyone is useful and nobody is indispensable at the company, and so it must be. This is why it is very important to collect and manage information well. The company is not made of words, but of numbers”, says Carloni referring to the amount of data present at the company that can be used to optimize decisions in real-time. Process automation allows access to a large amount of data, which, if well managed and processed, can be used in real-time to make the right decisions.

Andrea Carloni says he would rather act than talk, which doesn't surprise us, considering the results of his company. It was a pleasure for us to hear his stories, since they all contained his real and honest passion for the work he was taught from his childhood years. “The culture of work for which this region is known was instilled into us as children”, he explains with conviction. Carloni continues, “At just 14-15 years of age, I spent my summer vacation at a factory, gaining the technical knowledge and experience that lets me manage the company today”. And considering his words, we really can say that this is one of the pillars of LCM's success.

