

**MAKLAUS AND DATALOGIC:
HOW TO INCREASE QUALITY AND QUANTITY
OF THE PRODUCTION OF MACHINES FOR MICRO-DRILLING ON LASER
FILM, THANKS TO MX-E VISION PROCESSORS**



OVERVIEW

Maklaus is a leading company in the design and production of machinery for stretch film processing and perforation of moving webs, mainly used in industrial, agriculture and food sectors. Its Italian factories are located in Sesto Calende, Varese, and Reggello, Florence.

Film processing machinery range includes automatic rewinders of stretch film, pre-stretched film, for food uses, air stretch film, mini-roll and print machines. Maklaus winding machines can be configured upon the products to be treated and are suitable for both plastic film producers with high throughput, and small-sized converters and distributors.

Products listed as 4th range, such as fresh fruit and vegetables, are packed and ready for consumption. The ready-to-eat product sector has remarkably grown and recorded very high profit margins. Packaging is a crucial part of the preservation process of the products of the 4th range, and it has to provide additional function other than be simple containers, for the products have to maintain freshness for a long time. Yet, just packaging is often the reason of foul odour and wet condensation inside the package, with the consequent microbe growth and fermentation.

THE CHALLENGE

Maklaus is fundamental part to this process. Its machine for laser micro-punching enables making holes on the film the size of 50 to 200 micron, at 300 m/min. This type of top-quality and highly accurate punching is used to package the products of the 4th range, such as ready salad sold at supermarkets, whose packaging reveals micro-

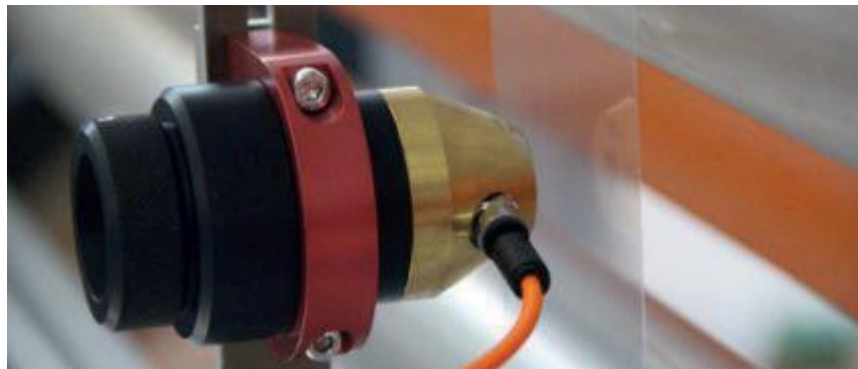


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punching to the touch, a rough surface purposely studied to avoid metabolic alteration due to anoxia. Such small holes are invisible to the operator's eyes, and he would need to stop the machine and check the samples. If punching is not correct, the product will go bad and clients, who cannot control manually entire pallets, cannot but throw away those ones where a non-punched pack is found.

Maklaus, which is constantly studying new innovations and solutions as to increase customer satisfaction, has tried to solve this kind of waste and production slowing down by addressing **Overall**, dealer of industrial automation products and highly experienced partner to Datalogic, able to support customers from design to start-up.



THE SOLUTION

Overall has suggested that Maklaus should equip itself with Datalogic vision systems. The **Series MX-E of vision processors support Gig-E connectivity**, equipped with Datalogic powerful **IMPACT** software boast unprecedented calculation speed and is therefore ideal to meet the most demanding vision challenges. MX-E vision processor combined with state-of-the-art fast cameras E-Series, with either monochromatic or colour CMOS, stands out for its highest performance in vision processing, albeit simple to use.

Maklaus has therefore completed its plant in a year, also encouraged by its customers' enthusiasm, who recognized in this project the possibility of getting higher guarantee of quality and reduction of expenses. In fact, not only does the new system check that the punching is performed, but it also measures the hole diameter. If no punching activity is detected, the system automatically stops the machine, thus enabling the operator to check anything in real time, and solve possible malfunctioning.

Connected to Maklaus system, the processor automatically increases or decreases laser power, upon the film motion, until the holes are the preset size, with no further stop-over. The operator can check the whole process on a high-res TV screen.



THE RESULTS

Thanks to Datalogic vision processors, Maklaus has been able to:

- boost production
- develop its technological offer
- increase the quality of its products
- avoid stop-overs also for two consecutive shifts
- increase client portfolio and customer satisfaction
- enable its customers, who usually profit on large quantities, to increase their profit thanks to increased production.

Datalogic is a global leader in the automatic data capture and process automation markets, specialized in the designing and production of bar code readers, mobile computers, sensors for detection, measurement and safety, RFID vision and laser marking systems. Datalogic solutions help to increase the efficiency and quality of processes in the Retail, Manufacturing, Transportation & Logistics and Healthcare industries, along the entire value chain.

The world's leading players in the four reference industries use Datalogic products, certain of the attention to the customer and of the quality of the products that the Group has been offering for 45 years.

Today Datalogic Group, headquartered in Bologna (Italy), employs approximately 2,700 staff worldwide, distributed in 30 countries, with manufacturing and repair facilities in the USA, Brazil, Italy, Slovakia, Hungary and Vietnam. In 2016 Datalogic had a turnover of 576.5 million Euro and invested over 50 million Euros in Research & Development, with an asset of more than 1,200 patents in multiple jurisdictions.

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