FachPack 2016

EXPO SPECIAL – SEPT 2016

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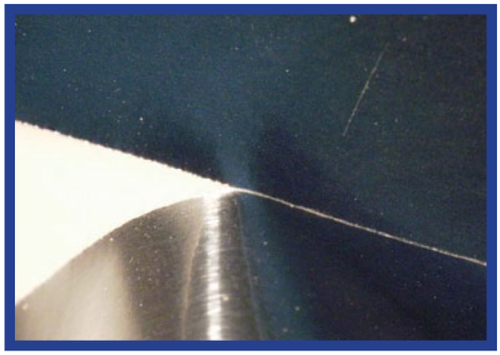
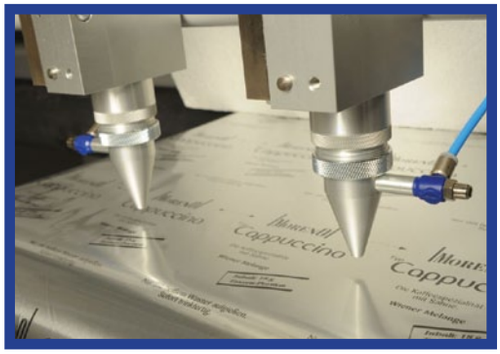
PRECISION AND FLEXIBILITY

Micro Laser Technology GmbH is one of the market leaders in the field of laser machine design and manufacturing. Founded in 2000, MLT is situated in Kirchheim, east of Munich. Libby White spoke with Walter Herrmann, product manager and application consultant, about the latest solutions from the company and its plans to exhibit at the upcoming FachPack exhibition.





With 16 years of knowledge and expertise, MLT started developing laser systems for perforation for tipping paper in the tobacco industry. Shortly after, it applied its expertise and technology to modified atmosphere packaging for products such as fresh cut lettuce and vegetables. Mr Herrmann comments, "Today, we are very well known as a system integrator- our aim is to supply turnkey systems for our customers. We are present in the tobacco and food packaging markets across four continents (excluding Australia). Over the years we have benefited from a steady growth."

MLT's machines are used in a wide range of sectors, such as the tobacco, paper and packaging industries. "Our customer are mainly converters. Of course, we also have installations with end customers, and in some cases we supply our machines to large multinational customers for their R&D departments," says Mr Herrmann.

The company prides itself on having a deep knowledge of rewind web material and the ability to provide precision laser technology in this moving environment. "For the packaging industry, we provide applications such as easy-opening and perforation, and it is quite a specialty to achieve precision during the movement of the web," Mr Herrmann explains. On top of this, MLT owns some patents on its perforation equipment which makes its machines highly competitive with regard to throughput, with perforation speeds of up to 750 m/min and quantities of more than 1,000,000 perforations per second achieved on web material.

Advantages of laser technology

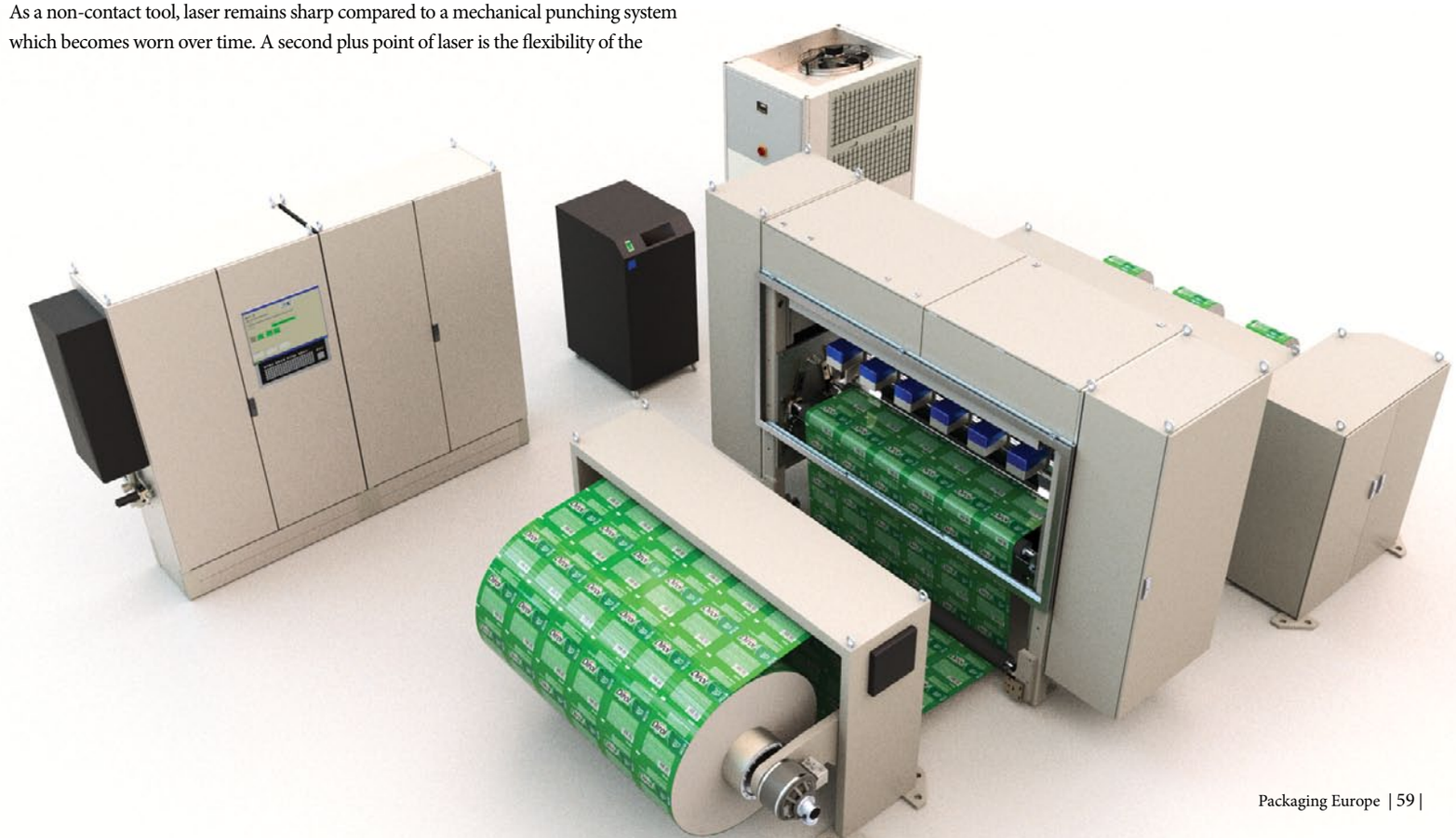
As a non-contact tool, laser remains sharp compared to a mechanical punching system which becomes worn over time. A second plus point of laser is the flexibility of the technology. Mr Herrmann explains, "On a CAD system you can create and import easily to the laser control different and individual shapes, scoring, cutting and marking abilities. The changeover requires less down time than a mechanical punching system. It also gives packaging designers more freedom and possibilities in creating packaging solutions."

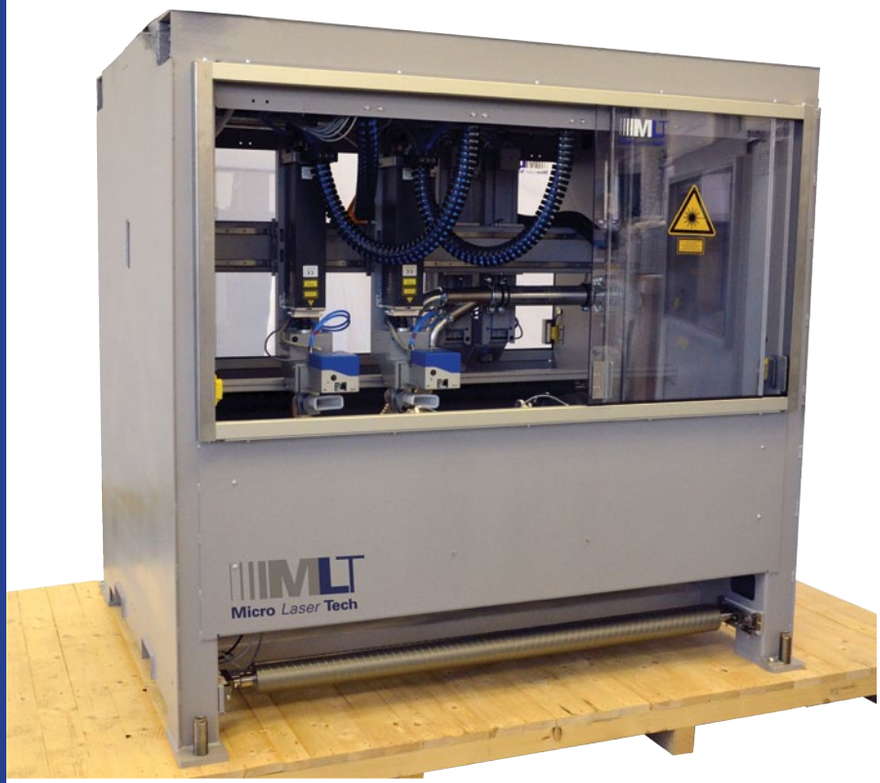
MLT can explain its success on offering customised solutions, which sets the company apart and has ensured its reputation has flourished on the market. "We have a demo system at our facility and can develop and find the best combination of laser technology and optic modules for specific enquires. We also ensure that the solutions we provide are stable and when integrated, give high precision as standard," says Mr Herrmann.

He continues, "The first systems we sold 16 years ago are still running today, and our yearly maintenance offering ensures the smooth running of daily operations. This can be explained by the fact we do not use the cheapest modules for our machines. Instead, we provide quality and long term stability. My experience is that 'made in Germany' is still renowned on the market."

Market presence

With a global presence, MLT firstly supports its customers with a service team based at its headquarters in Munich. Additionally, it has technicians based in Brazil, China and Thailand to ensure a quick and efficient response to customers. Mr Herrmann adds, "We have remote access to our machines, enabling us to check reported problems. MLT also has a telephone hotline 24/7 to ensure a technician is always on hand to answer our customer's questions." ▷





In order to share ideas, and meet new and existing customers, MLT is present at major exhibitions internationally. For example it has plans to attend the upcoming ICE in Munich, interpack in Düsseldorf, as well as shows in Thailand, India, and the US. Of particular note, the company will be present at FachPack 2016. Mr Herrmann shares, "We have attended this show for several years now. We will be showcasing a laser module designed for integration with a horizontal packaging machine, and will be presenting our new quality control system. These will be our two highlights on our stand.

"We look forward to the exchange of ideas and meeting new contacts: every week I receive new enquiries that I hadn't even thought of and it's unbelievable some of the ideas attendees bring along to the shows. Of course, we also use FachPack to meet with our existing customers to talk about their existing machines and future planning. It is a great platform for face-to-face communication."

Flexibility and new developments

Within the last year MLT has established a new machine concept to the market which offers flexibility. Mr Herrmann explains, "Our customers can start with a basic system, and we can give them the ability to upgrade easily with laser technology and optical modules. The idea is to provide ease and flexibility for our customers, so as they can upgrade when they become more established on the market themselves."

Standard applications for food packaging include easy-opening, perforation, and scoring straight lines for stand-up pouches, however MLT also provides some more specialty solutions. For example, it has integrated a laser system with a horizontal flow-wrapper in order to score the film, giving a sleek bend on the pack and sharp edges where the material is bent. This can be seen in the Mondelez Cadbury Glow luxury packs.

MLT has also realised another solution for coffee capsules: an innovative coffee company has launched a complete PLA solution whereby the lidding and the capsules are both 100 per cent PLA. Conventionally, the lidding film is made with aluminium. With its innovative laser technology, MLT can weaken the lidding film so it breaks exactly in the coffee machine under the high water pressure and temperature.

With an increase in packaging for the convenience food market, MLT can provide an innovative solution for packaging suitable for microwave use. "We can locally weaken the pack or the film, so whilst cooking in the microwave the over-pressure is exact and the pack cracks and opens whilst maintaining an inner-pressure to ensure the cooking time is short. We see requests for this especially coming from Asia," Mr Herrmann explains.

As of this year, MLT is introducing its new quality control system, which is based on camera systems. This solution evolved from the needs and requests of MLT's customers, who wanted to inspect the quality of laser applications inside the reel, an important requirement when working from reel to reel.

Laser evolution

MLT has an ongoing commitment to invest in new technologies. Mr Herrmann explains that laser is a substitution for existing technologies in the markets that they serve, and it is a continuing transformation. He comments, "If you go into a supermarket today, you can see that there are a lot more packs to be realised and improved upon, there is a lot of opportunity on the packaging market."

He points to a combination of laser technology and digital printing as an interesting development for the market: "In the past few years, we have seen some exemplary combinations of laser technology and digital printing on the market. They both provide the advantage of fast changeovers. An ongoing trend for smaller batches means turnaround times need to reflect and react much faster to the market requirements. These two technologies go hand in hand and I think in the next ten years we will see this as a growing trend on the market." □

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