

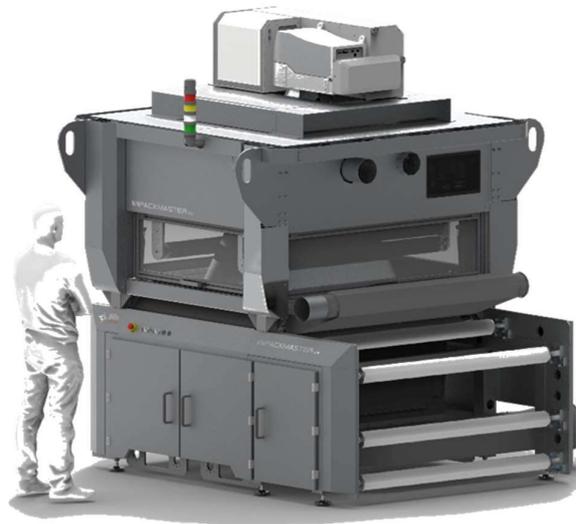


# The Future of Flexible Packaging

## SEI Laser solutions for Flexible Packaging



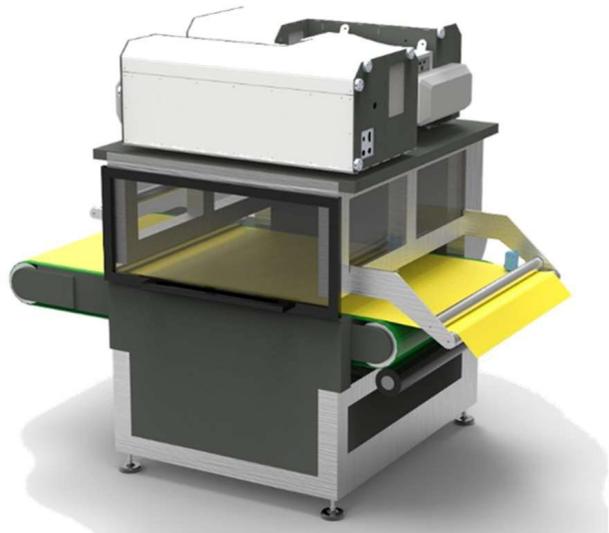
*Packmaster OEM/CW Cross Web*



*Packmaster CW GP Ground Position*



*Packmaster OEM/WD Web Direction*



*Packmaster CW Conveyor*

Buyers today expect more than just nice printing!

Laser technology is the key technology for the production of smart packaging having added value. For example, laser scoring, easy-opening packaging and laser perforated monolayer films for enhanced shelf life of perishable fresh food are already widely used in the food industry.

Laser-optimized packaging is better. There are so many benefits of a laser scribing for easy tear line on a doypack, including for the use of micro-perforated pouches for salad and vegetables! In addition, controlled oxygen exchange considerably enhances perishables' shelf life, which also leads to less waste, reduces overall costs and helps to protect the environment.



### Micro perforation for controlled permeability

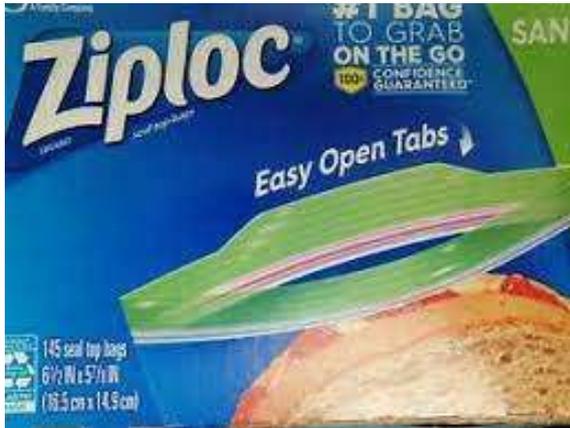
The right permeability (breathability) is essential when packing fresh food products. It is a game changing technology that extends the shelf life of fresh products, thus decreasing food waste.

Micro-perforation (less than 80 microns hole diameter) can also be used for packaging applications suitable for the microwave in order to release the steam from the bag, for example.

### Easy and direction-controlled opening

Make it easier to open your packaging with SEI laser perforation solution. The packaging can be opened easily and in a controlled way, the size and form of the perforation, as well as scoring deep, can be adjusted according to your needs. With a perforated opening, you will increase the convenience of your packaging. Laser scoring allows packages to be opened effortlessly, resulting in higher consumer satisfaction and allowing brands to outperform competitors. In consumer testing, laser-scored packages are consistently preferred by consumers because they are easy to open. Today's consumers demand for convenience, laser scoring provides that. For applications like medical devices where every second counts, laser scoring is very important.





### RECLOSABLE BAGS

Reclosable bags have become a classic. Their versatility and durability, and the fact that they can be printed or written, allow them to be used everywhere: from home to industry and a multitude of other applications.

They are perfect for repeated opening and closing, they are leak proof and they are composed by durable polyethylene.

### PEEL AND RESEAL PACKAGING

Peel and reseal packaging can be found in grocery stores around the globe. Ideal for cookies and other snacks, C-P Flexible Packaging was one of the first suppliers of this now familiar packaging format. Reclose packaging isn't a simple product for most converters to produce, but we have it down to a science. Peel and reseal rollstock, which is created with innovative laser die cut and pressure sensitive adhesive or label, provides many benefits:



- It is convenient, easy access to package content from the top rather than the side of the package
- It is easy to open and reclose
- It is tamper evident
- It is convenient for entertainment or on-the-go snacking
- It prevents packaging film tear off that forced consumers to repackage products in order to preserve freshness in the past
- Overwrap or secondary packaging aren't required

### LASER DIE-CUT (WINDOW PACKAGING)

The need to see the product is one of the most important ones. SEI Laser Packmaster CW WP (Window Packaging) satisfies this need without sacrificing packaging efficiency or shelf life.

This technology allows to use high-speed lasers to die-cut customized windows into paper laminated reels. Die-cut rollstock provides several benefits compared to equivalent forms of packaging such as stand-up paper bags:

- It adds significant shelf life for your product with better barrier.
- High productivity





### SHRINK-SLEEVE

Sleeves can cause problems when PET bottles are being sorted by infrared or optical detectors in waste plastic recovery plants. In order not to lose the valuable material and ensure that it is channeled into the appropriate sorting stream, SEI Laser has a solution: perforated sleeves that can be removed by consumers. The sleeve has double perforation that is easily identifiable and removable by consumers.

The packaging industry develops a standardized perforation concept in terms of functionality (easy tearing) and design (immediate recognition), regardless of the type and content of the PET bottle.

### FRUIT & VEGETABLE PACKAGING

Holes must be cut with the utmost precision in pre-defined positions to obtain quality perforation that guarantees optimum product shelf-life.

Laser macro-perforation is mainly carried out for food and guarantees perfect perforation quality throughout the entire process.

Macro-perforation is mainly used for the fruit and vegetable market. Perforation density is adapted to the breathing requirements of the packed fruit or vegetables.



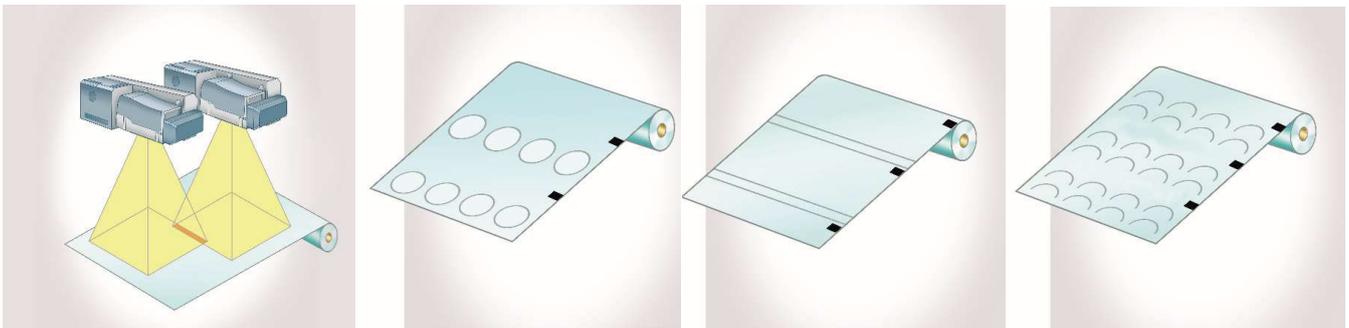
### LASER DIE CUT

SEI Laser Packmaster Conveyor has been specifically developed for high precision and variable shape die-cutting.

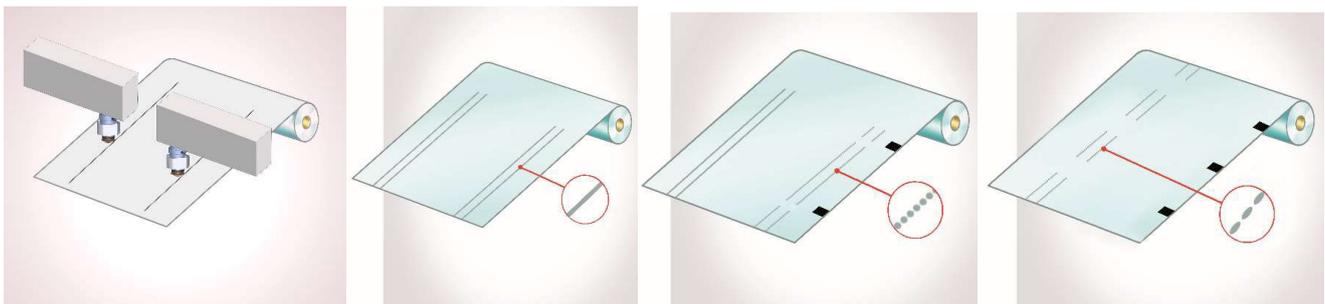
This allows to use high-speed & high flexibility laser technology to die-cut customized windows on any type of mono or multilayer film structure.

## SEI Laser: Leading Solutions for the Packaging Industry - PACKMASTER Line

Packmaster CW concept



Packmaster WD concept



| PACKMASTER   | WD         | CW/WP        | CW/GP        | CW/CONVEYOR  |
|--|------------|--------------|--------------|--------------|
| Free form Contour Scribing                         | No         | Yes          | Yes          | Yes          |
| Multiple Head Web Direction Scribing               | Yes        | Yes          | Yes          | Yes          |
| Laser Power  | V150       | V500 to V800 | V150 to V300 | V150 to V800 |
| Super Fast Galvo Heads                             | No         | Yes          | Yes          | Yes          |
| Tailor-made Safety Housing (Class 1) & Frame Works | Yes        | Yes          | Yes          | Yes          |
| Web Width (mm)                                     | Up to 1600 | Up to 2500   | Up to 2500   | Up to 1800   |

## Laser application for specific flexible packaging & the right PACKMASTER model

| FLEXIBLE PACKAGING LASER JOB REQUIRED         | Packmaster CW/WP | Packmaster CW/GP Ground Position | Packmaster WD Web Direction | Packmaster CW Conveyor |
|---|------------------|----------------------------------|-----------------------------|------------------------|
| MICRO PERFORATION FOR CONTROLLED PERMEABILITY |                  |                                  | ✓                           |                        |
| EASY AND DIRECTION CONTROLLED OPENING         |                  | ✓                                | ✓                           |                        |
| RECLOSABLE BAGS                               |                  | ✓                                | ✓                           |                        |
| PEEL AND RESEAL PACKAGING                     |                  | ✓                                |                             |                        |
| LASER DIE-CUT (WINDOW PACKAGING)              | ✓                |                                  |                             |                        |
| SHRINK-SLEEVE                                 |                  | ✓                                | ✓                           |                        |
| FRUIT & VEGETABLE PACKAGING                   |                  | ✓                                |                             |                        |
| LASER DIE CUT                                 |                  |                                  |                             | ✓                      |

## SEI Laser Application Labs , Dealers and Branches



**SEI Laser** has been developing laser solutions for the Packaging Industry for more than 20 years.

SEI Laser isn't just a production site, but also a company oriented to product and application testing where customers and distributors can experience the potential of our laser systems directly. Day after day, inside the Demo Room, our specialized staff performs tests: a fundamental job that contributes to the continuous development of SEI Laser products. There is also a Training Room where training and updating courses are periodically organized. In our application labs we work with the widest range of laser sources and laser systems as well as latest CO2 laser technology and we co-operate closely with laminator manufacturers, printing machine manufacturers and slitter-rewinder manufacturers.

**Global Service & Support Customer** SEI Laser is always in contact with its customers and guarantees a prompt, personalized response: our specialized technical team is located throughout the world thanks to its branches and dealers. The company, in fact, focuses on the continuous, permanent training of its technicians with instructions on new laser systems and updating courses on systems already installed. SEI Laser places the same focus on the technical team of its customers, preparing them, assisting and certifying them. The updating courses are scheduled regularly throughout the year to ensure that the laser systems are used in a professional way.

The mission of the SEI Sales Technical Support Team is to provide the real-time service expected from the leader in the flexible packaging industry.



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