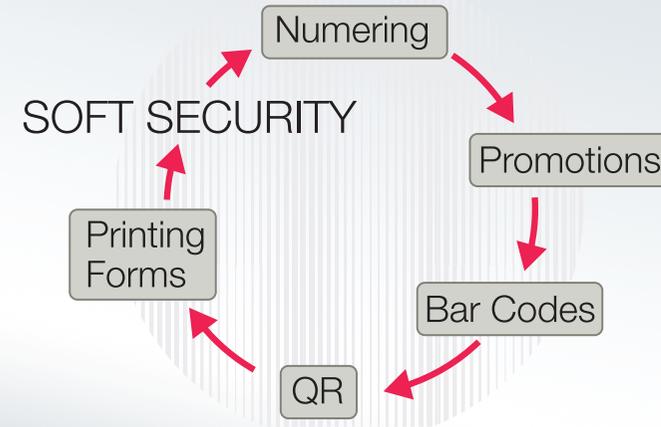
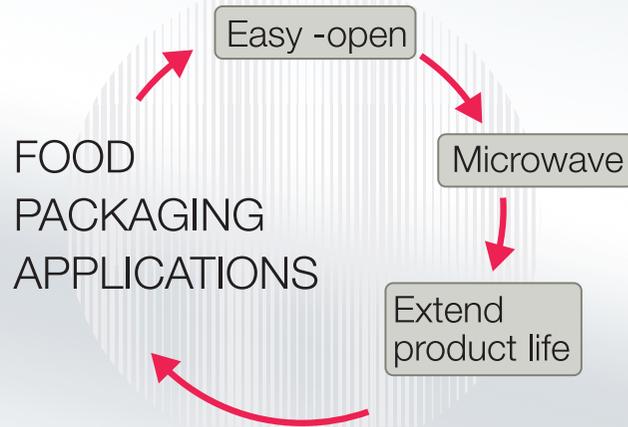


LASER IN LINE PROCESSING SYSTEM



SUSTAINABILITY → Simplify the production process avoiding coating

CingularLaser

Patent Pending

LASER IN LINE PROCESSING SYSTEM

IT'S PRECISE

The new range of Cingular Laser equipment is an innovative generation of laser processing systems opening up a wide range of flexible packaging possibilities. Cingular Laser allows you to carry out very diverse applications more easily, achieving top quality:

MICROPERFORATION / SELECTIVE LAYER CUTTING / MACROPERFORATION / MARKING

The Cingular Laser series can include between 1 and 10 laser outputs, so any head can be controlled independently of the others. In this way, one head can be carrying out a particular application while the others carry out a different application, or even the same one with another pattern. Heads that are not being used can also be stopped as you wish.

Our systems' easy-to-use, practical and very versatile software is designed to achieve perfect control of the laser unit: Cingular Laser is the best possible tool for flexible packaging.

LASER MICROPERFORATION

MAKING PACKAGING BREATHE

In packaging perishable products, the preservation of their optimum quality and sensory properties are closely linked to the right balance between the air circulation and the maintenance of humidity. To preserve this fragile balance between oxidation gases and those making it possible to increase the average shelf life of products, it is necessary to make a certain number of micro-holes (50 to 300µm), affecting what is called the respiration rate.

In this sense, the Cingular Laser system shows significant advantages over conventional hole-making techniques. The high energy per pulse of our lasers allows perforation of absolutely all layers of the film. In addition, the melted edge of each perforation prevents the film splitting or micro-fissures occurring, which would end up seriously damaging the integrity of the packaging.

The Cingular Laser systems allow microperforation at winding speeds of more than 400 m/min, without losing a consistent perforation diameter.

SELECTIVE LAYER CUTTING

"EASY OPEN"

Cingular Laser's precise laser beam control makes selective layer cutting as easy as possible, even in the most complex multilayer plastic films, allowing the package to be opened easily without the need to damage or risk the protection of the product. PET, PP and PE, among others, have different absorption coefficients for the wavelengths of the lasers that process them.

Meanwhile, aluminium or metallic layers act as a highly reflective barrier to this wavelength. Because of this, Cingular Laser allows the processing of one or more layers, leaving the others unchanged. Another advantage is that, unlike mechanical tools (dies, blades, punches, etc.) the laser suffers minimal wear, as it does not come into mechanical contact with the film.

Thanks to the system of light, ultra-fast scanners incorporated in Cingular Laser, it can trace any geometry. In addition, the pre-cutting, or selective cutting, is carried out in the winding direction but also across the winding direction. This opens up a new field for packaging, as it does not restrict the designer's creative freedom. The result? More attractive, innovative products.



LASER MACROPERFORATION

MAXIMUM PRECISION

The new Cingular Laser range makes it possible to carry out macroperforation by defining regular shapes – like the "euro hole" – or random ones, always in dynamic processing and at medium speed.

Thanks to its software, our machine can process circular holes and any other geometric shape that might be required up to 10 mm in diameter, always with the same precision.

MARKING

FROM PRODUCT TRACEABILITY TO CUSTOMISATION

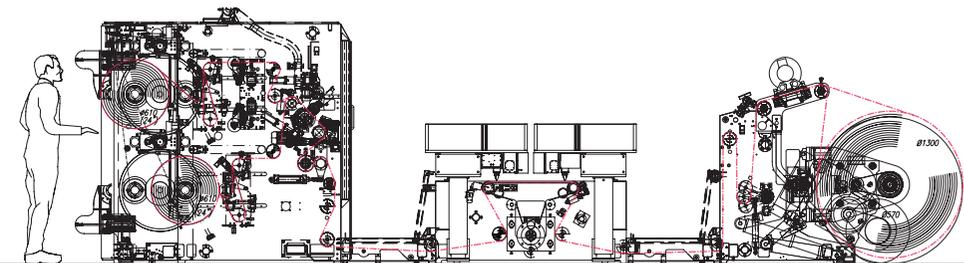
Modulating the laser beam to high speed allows an interesting application of Cingular Laser: marking or coding directly on to film, both to achieve full product traceability and to print logos or customisations.

This versatile application makes it possible to customise certain processes for the end customer, including manufacturing or expiry dates, bag references and many other functions.

TECHNICAL SPECIFICATIONS

COMEXI PROSLIT CINGULAR LASER

CingularLaser	100
Laser Heads	2 to 8
Rated power (per head)	100W
Wavelength	10,25 µm
Laser Processing	Laser Micro, Easy Opening, Cutting, Laser Macro, Marking and Coding
Laser Micro Ø	Ø 50 µm - 500 µm
Laser Source	Sealed CO2 excited by RF
Beam Quality	M2<1.2
Cooling System	Water
Voltage	230 V ± 10%; 50/60 Hz Single phase or two-phase



Technical features are subject to change depending on the configurations selected.

COMEXI PROSLIT