Technologies of Innovation:
Laser in line and holographic lamination for flexible packaging
60 years focus on solutions for flexible packaging

Family Company focus on investigate, design, produce and market products and services for the flexible packaging converting industry

Professional management

500 employees

+100 Million €

+100 countries

Manufacturing plants in Spain, Italy and Brazil.
STRATEGIC LINES
Global supplier

PRINTING
- Flexo
- Gravure
- Offset

LAMINATING & COATING
- Solvent based
- Solventless
- Water based
- Holography

SLITTING & REWINDING
- Laser microperforating
- Scribing

PERIPHERAL & ENVIRONMENTAL EQUIPMENT
- Cleaning
- Logistics
- Environment

TECHNICAL SERVICES

COMEXI: MANEL XIFRA BOADA TECHNOLOGICAL CENTRE
. Market approach of Flexible packaging
. Flexible packaging as a tool to respond customers’ needs
. Technologies of Innovation
  . Comexi Proslit Cingular laser
  . Comexi Nexus Holography
. New trends to reinforce the message on the packaging
. The Manel Xifra Boada Technological Centre as a key driver of knowledge
Despite globally going through economically difficult times, the packaging sector keeps itself on a important base of growth

*Worldwide FP Industry estimation*
Global flexographic printing output by print product, 2006–16 (billion A4 prints)

Source: Pira international LTD
• Social factors such as the growth of middle class or new ways of life and, therefore, new ways of consuming, affect the products and the growing of flexible packaging.

• The flexible packaging industry must adapt to industrial and social needs that arise with each new product.
Consumer motivations

SAFETY / PEACE OF MIND

“it won’t hurt me, my family or the planet”

WELLNESS

“it’s really good for me”

GRATIFICATION / ENJOYMENT

“it makes me feel good”

CONVENIENCE / FREEDOM

“it’s so easy for me”

Consumer needs

Market approach of Flexible packaging
• In a competitive market that is related to an increasingly demanding consumer, manufacturers of the food sector face the difficult challenge of seducing and convincing.

• The converters should analyze in which sector they are and whether it might be interesting to consider differentiation in a market niche where business opportunities in which the differential value of the packaging allows better profits margins.
Flexible packaging as a tool to respond customers’ needs

- Differentiation
- Functionality
- Safety
- Time to market
- Costs
- Quality
- Adaptability
- Sustainability
- Communication
- Seriality
Differentiation

In a competitive market a company has to be able to differentiate itself to add value.

It is important to assess the existing and new solutions available in the market in printing, slitting and laminating tecnologies.
Flexible packaging as a tool to respond customers’ needs

Communication

- Approximately 70% of purchase decisions are made at the point of sale.
- We must take into account the areas and communicative tools.
- Effects such as holography can also bring value to the packaging in order to attract consumer attention.

Packaging is the optimum way for promotions
Flexible packaging as a tool to respond customers’ needs

**Functionallity**

- Packaging is not only about containing, but above all it has to be functional and allow the ergonomics that the consumer requires.

- Life expectancy increases, the population ages and also the difficulty to find time to cook is more common. Solutions such as easy-open or microwaveable packaging will facilitate the way of consuming.
Comexi Group Solutions to satisfy new market trends

- Comexi Proslit Cingular laser
- Comexi Nexus Holography
Technologies of Innovation: Comexi Proslit Cingular laser

COMEXI PROSLIT  Laser in line
New trends means New applications

- Easy open = FOOD PACKAGING
- Selfadhesive labels = PRODUCTIVITY & More width
- Marks and numbering = PROMOTION & Soft Security
- QR SoftSecurity
- Microperforation = FOOD PACKAGING & LONGER TIME LIFE PRODUCTS

Technologies of Innovation: Comexi Proslit Cingular laser
Why perforation with laser? 

Benefits
Actually, perforation is possible: in Rotary system, pneumatically punch and hot needles, but you can not make micro perforation in all these systems. Only macro perforation is possible, because the market believes micro perforation is below 800µ; Nowadays only hot needles system arrives to this dimension (800µ).

The ONLY system able to go under 800µ is: LASER

Laser Perforating
Micro holes for controlled atmosphere packaging
Laser system vs traditional system

• Better for the material to have a laser hole (because it does the donut and strengthens the material=VOLCANO)→ because the punch system debility of material.

• Versatility → Substitution of all actual systems into one system (die cut, hot needles, pneumatical punch, pre-cut score (rotary knife, sheeter machine or cross cutting).

• Quality of dimension, diameter, forms, synchronization & it can go to register→ same quality without wear

• Durability of laser 25.000 hours
Markets and applications
What can we do?
Decorative sleeves for rigid packaging bottles, not to print the PET bottle. Easy open in the cover, holes to extract air when thermoforming PVC is made, in strategic points lower 500µ.

Laser system: 500µ holes, easy open discontinuous cover.
Protection and prevention of human contact; air vapor exit; **micro perforation** against insects for prevention (Example: ants)

**Laser system:** 500µ holes, better image (do not transform the opaque material)
Avoid migration of aromatic components. It is sensitive to oxygen and light → easy open, non-breaking the aluminum ensures that protection.

**Laser system:** Only breaks 1 face with different forms, line, hand holes....
Air protection and evaporation in microwave matrix **micro perforation**; trademarks to ensure material deformation when heating.

**Laser system:** 200 up to 300µ holes, it is also possible to make marks or perforations on first face....
Container must resist pasteurization or sterilization processes → easy open, without breaking the aluminum, gives that protection to the product.

Laser system: Only breaks 1 face with different forms, line...
Holes for air evacuation to transport and store more packages → protection and prevention of bacteria (Bacillus cereus).

**Laser system:** 300 up to 500µ holes
Self-adhesive labels

Labels to make easier the recycling of bottles and low cost. You can change quickly labels ... → TIME TO MARKET

Laser system: Changing forms by software
Modified Atmosphere Packaging
The aim of MAP for fresh products is to enable controlled gas exchange between CO2 and O2 to achieve the correct permeability (breathability,

**Laser system:**
High productivity, no downtime due to tool change. 50-80µ up to 200µ.
Technologies of Innovation: Comexi Nexus Cingular holography

Cingular holography technology
Cingular holography technology

• Create holographic effects at register on a wide variety of substrates providing distinctive packages with a high visual impact and incorporating counterfeiting features.
• Environmentally friendly; no emissions of VOCs
• Is not required a lamination with a metallized substrate to create holographic effects facilitating the recycling of the package.
• Reduce significantly the cost of final products respect.
• Create high gloss and matte effects at register over a printed substrate as well as Cold Foil effects.
Cingular holography: duplicating

How duplicating works? We “copy” the hologram (relief) to the printed / clear film
Cingular holography: Transfer cold foil

In **Cold-foil transfer**, the original film loses the information as long as it is transferred to the printed film.

UV Curing

TRANSFER COLD-FOIL

UV LACQUER

PRINTED / CLEAR FILM
Applications

- **UV cingular holography** duplicating from mother reel to printed or clear web, full coverage or register
- **UV cingular holography** Cold-foil transfer from mother reel to printed or clear web, full coverage or register
- UV Lamination
- Coatings UV at full coverage / register (glossy / matte)
- SL Lamination (optional)
Unique Process for Packaging to make UV transparent or coloured holographic and cold-foil effects onto a film, at register or full coverage, in Flexography technology.

What does this offer to our customer?

DIFFERENTIATION and ADDED VALUE
To conclude we should think about the new trends that reinforce the message. We believe these trends are and will be the following:

- Emphasis on safety (health, food safety)
- Integration of processes (digitization, unification of languages, design)
- New products and new packaging (sophistication, single dose, new materials)
- Super functionality (easy open, easy consumption, ergonomics)
- Exclusive packaging (differentiation, anti-counterfeit, flashy)
- New ranges of communication (purchase experience, social media, advertising campaigns)
- Reduction of serialization (short series, regionalized information, constant renewal)
- Brand interest (corporate social responsibility, promotions, global mindset – local strategy)
- Comprehensive sustainability (lighter packaging, more recycling, bio materials, greater logistical efficiency)
- Traceability (delivery, local products, control of the production chain)
Consulting
Programs to improve competitiveness and growth in the flexible packaging environment

Innovation services
Creating new categories of products / services

Demo Center / Industrial lab
Last generation machinery fleet available to the customer

Training and academic activities
Technical seminars, Professional training and Masters’ studies

Workflow
Cost reduction
Improvement of efficiency
Comexi Group, Specialist in flexible packaging converting processes

Pre impression
Inks
Films
Adhesives
Solvents

Suppliers

Converters

COMEXI GROUP

Roto
Flexo
Offset

Roto
lamination
slitting

Rsse
Laser
Holog.

Packaging

Market Final product

Brand Owner
Thank you

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