



COMPANY PRESENTATION

UPGRADE ON SHRIKWRAPPERS

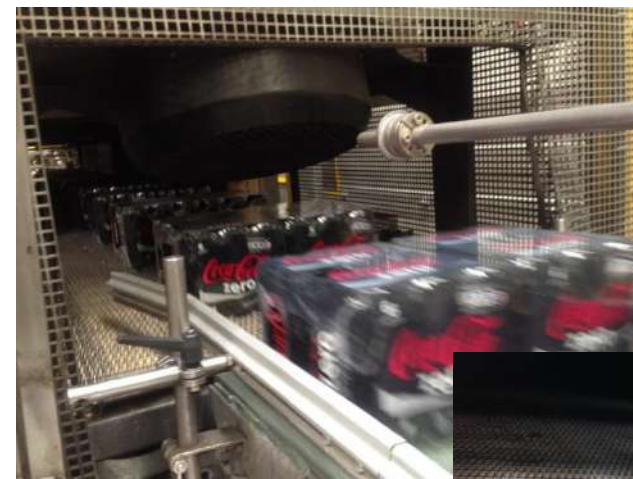


OVEN STEEL MESH CHAIN

Upgrade of the stainless-steel mesh shrink oven chain: this consists of mounting the stainless-steel mesh chain on the thermo-shrink oven

STRENGTHS

- **Improve the result of the thermo-shrinking process:** thanks to better ventilation of the hot air inside the heating chamber, it is possible to obtain a reduction of about 10°C of the operating temperature, ensuring considerable energy and economic savings.
- **Increase the speed of shrinkage:** the greater flow of air towards the bundle speeds up the process.
- **Improve mechanical resistance:** compared to the system in use, the use of the oven chain in steel mesh makes it possible to reduce the wear and tear on the mechanical parts, extending the life of the chain itself.
- **Reduce costs:** as it is a commercial accessory that is not exclusive to the manufacturer, it is easier and cheaper to find.



**CLOSE TO
CUSTOMER**

**CONCRETE
KNOWLEDGE**

**TURNKEY
SOLUTIONS**

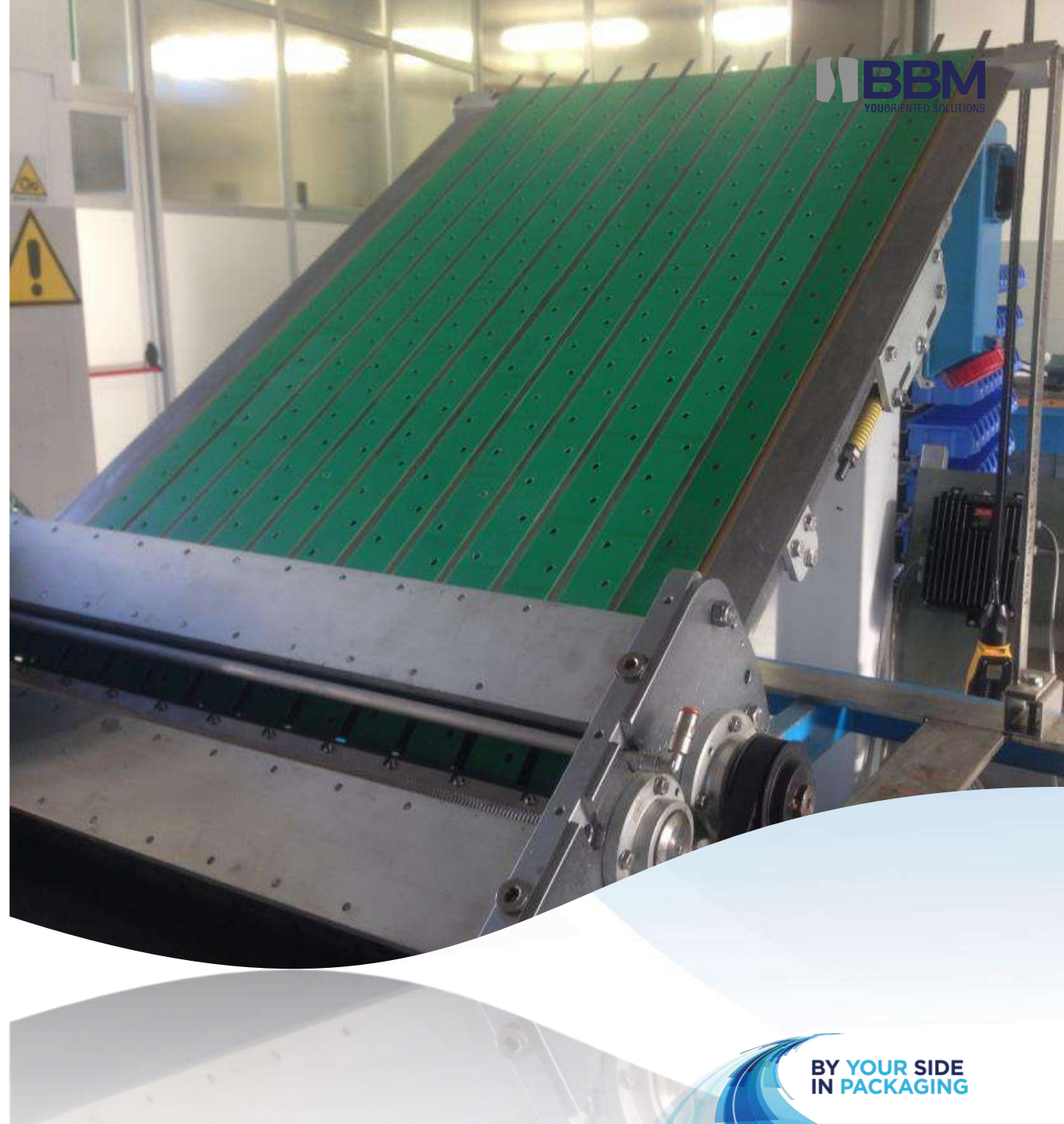
KNIFE GROUP WITH MOTORIZED BLADE

The knife group with motorized blade is part of the upgrade's portfolio proposed by **BBM PACKAGING** to optimize and reduce the costs/consumptions of thermo retractable film used for the packaging.

The upgrade consists in the installation of a new knife group with a motorized blade with some important modifications, that consist in:

- removal of the adaptor without taking out the motor that is linked directly with toothed belt;
- application of the rubberized roller for conveyor pulling;
- application of the aspirating belts on the film climb that reduce the film obstruction in the cutting zone and so the production stop. In this way, also the problems related to the old cutting system of LSK series can be solved;
- reinforced system with the installation of a bar to press the superior rubberized rollers

This modification makes it possible to work a film with a thickness of up to 30 microns.



FILM UNWINDING AND STRETCHING

The upgrade consists of the replacement of the film unwinding system with a new equipped with servo-driven.

The system is completely electronic: starting from the reel diameter, by two sensors that communicate with PLC, it calculates the length for each turn giving only the necessary film to wrap the packs. In this way the reel tension is constant, avoiding tears or stretching.



Object	Standard version	Upgrade with brushless
Film unwinding	Unwinding film reel directly from cutting knife.	Managed by PLC, it delivers only the proper quantity of film necessary for each wrapping cycle.
Film stretching	By mechanical cam + proportional valve who drives a pneumo-hydraulic brake.	Managed by PLC, the film tension is always constant, avoiding tears, stretching or missing cuts caused by a reduces tension of the film.

TECHNICAL FEATURES

Brushless drivers implemented directly in the machine's cabinet.

Reel's hydraulic brake system replaced by brushless system

Reel's hydraulic brake system pilot replaced by position transducer.

BEFORE



AFTER

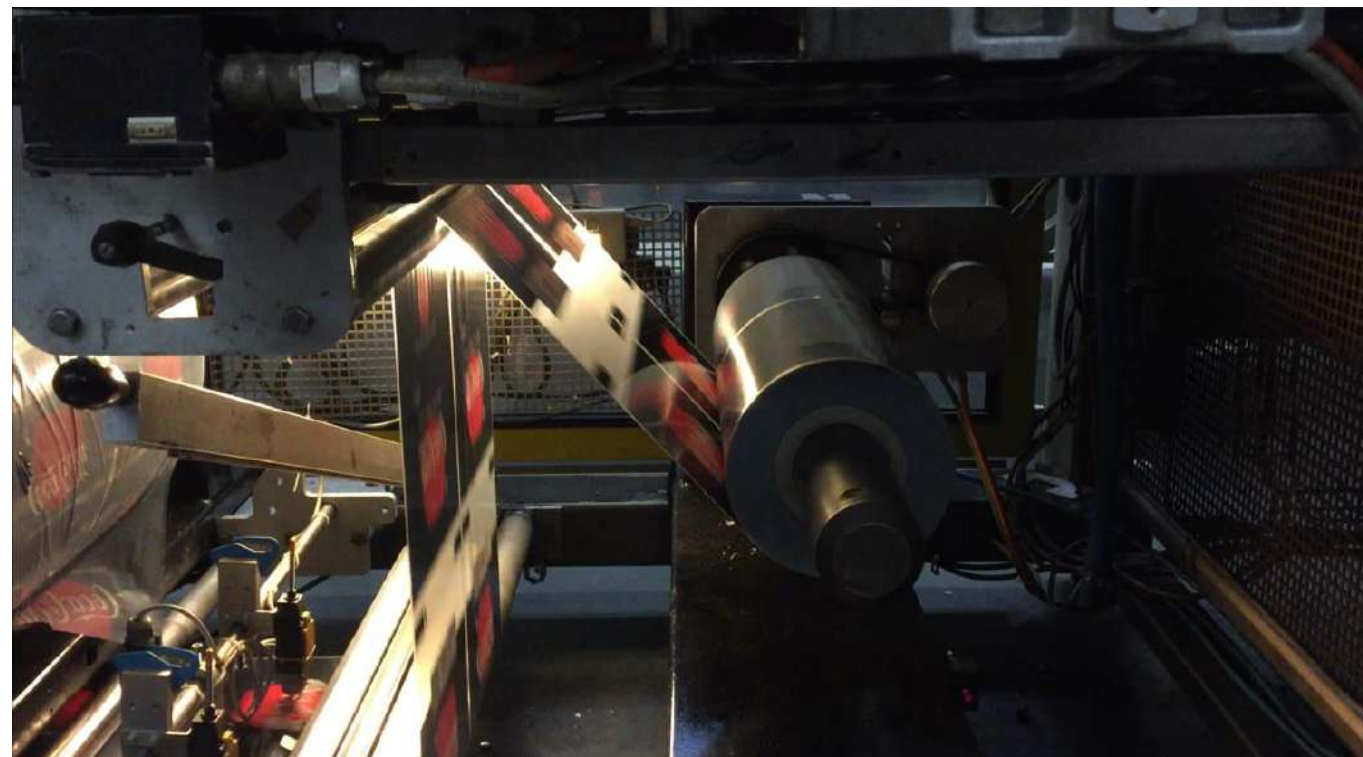


ADVANTAGES

- The system allows for reducing the film thickness, granting a considerable cost-saving on the material (see the table).
- The system solves the problems caused by the inconstant film unwinding.
- The system solves the problems of film tensioning due to the change in the reel circumference.
- Available for single, double, and triple lane shrink wrappers of several brands and models.
- The system is equipped, for double and triple lanes, with the electronic centering film device that detects the lateral shifts of film, compensating them immediately.

Economic advantage due to the film thickness reduction

Bottle	Format	Days	H/days	Bottles	Bundles
PET 1,5 L	3x2	260	14	50.000.000	8.333.333



Film cost comparison for 50.000.000 produced bottles/year

Film type	g/bundle	€/kg	Tot k/year	€/year	Cost saving	€/medium/bottle
LDPE 70micron	28	1,60	233.333	373.333,33		0,00747
LDPE 60micron	24	1,60	200.000	320.000,00	53.333,33	0,00640
LDPE 50micron	20	1,60	166.667	266.666,67	53.333,33	0,00533
LDPE 40micron	16	1,60	133.333	213.333,33	53.333,33	0,00427

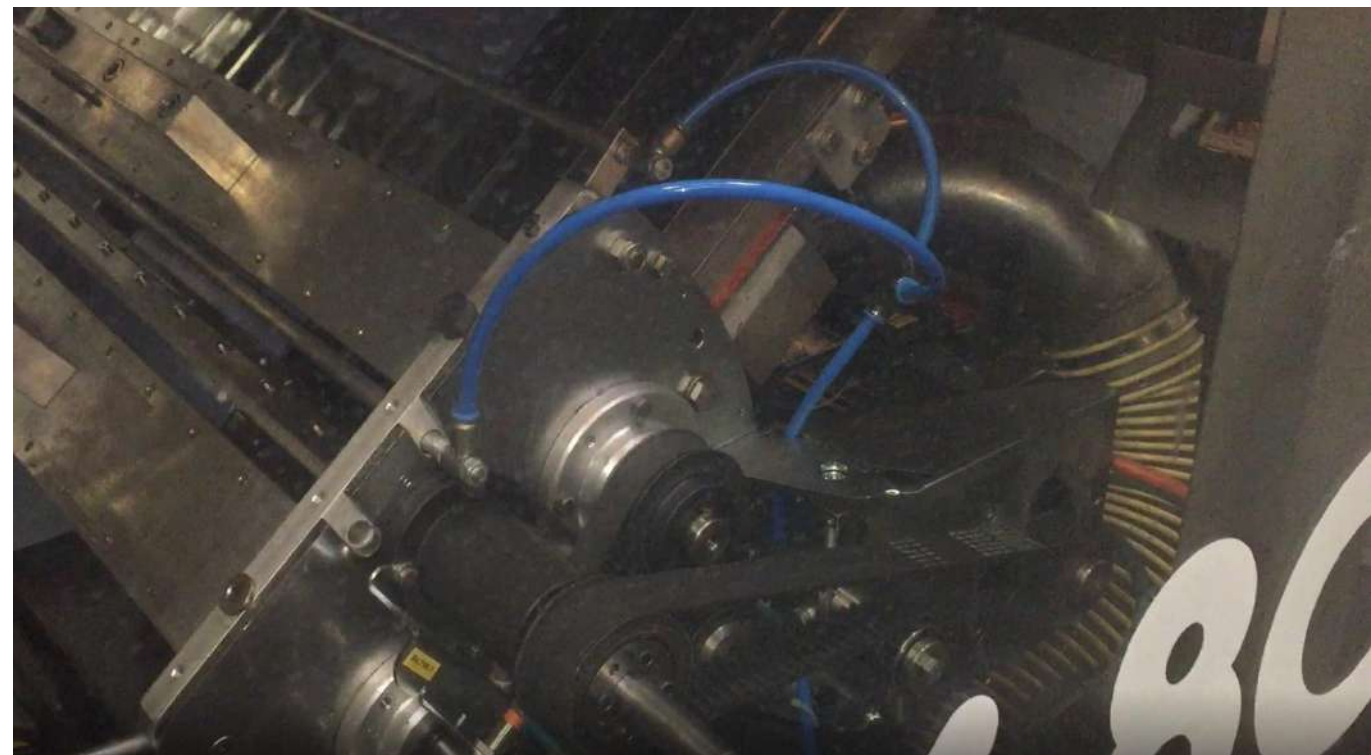
MOTORIZED BLADE WITH BRUSHLESS

What is the upgrade?

- **Replacement of the film cutting system with a brushless motor** that makes the rotation of the blade independent of the film feed speed.
- **Brushless servomotor dedicated to film cutting**, guarantees greater cutting accuracy, essential for the printed film, reducing mechanical components subject to wear

ADVANTAGES

- Cutting operations are more efficient and allow you to use films with different thicknesses.
- With the elimination of electro-pneumatic components, maintenance time and costs are reduced.



Object	Standard version	Upgrade with brushless motor
Cutting knife	Susceptible to the rate of advancement of the film	Makes the movement of the knife independent of the film unwinding speed, improving film cutting quality and efficiency

PRESSURE-LESS INFEEED SYSTEM

The upgrade consists in improving and solving the problems of product insertion on the entrance section of the shrinkwrapper.

ADVANTAGES

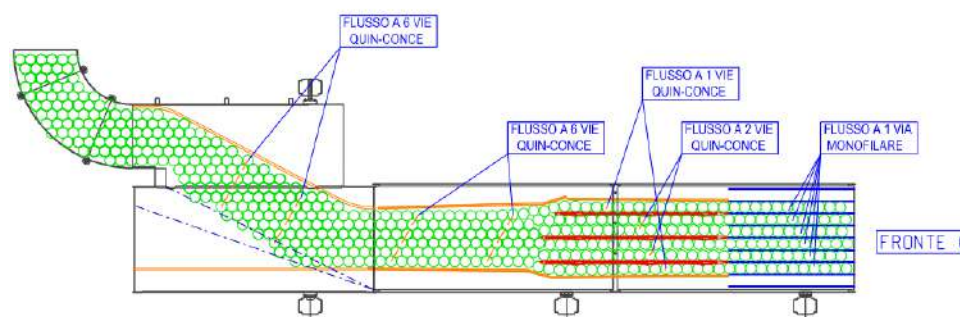
It allows to reduce the constant presence of the operator, thanks to the automatic entry of the product

Increases the speed of format change

Also applicable with bottles with lower weight and lighter

Avoid crushing bottles

Controls and reduces excessive pressure on the separator



MODIFICATION OF SEPARATORS

Due to excessive upstream thrust and an emergency stop, the pressure created by the product causes the separator motors to move and send them out of phase.

To solve this problem, it is possible to install special motors with integrated brakes that, in case of emergency or opening of the safety, are blocked by the internal brakes. Brief notes will become projects, prototypes, and new plants.

This upgrade on shrinkwrapper machine avoids, in case of excessive pressure from the product, the phase shift of the separator unit in case of power being removed from the drivers (opening of the doors or emergency intervention).



DYNAMIC STACKER SVP30

The SVP30 automatic stacker is a Cartesian axis device capable of overlapping metal or plastic containers packed in clusters and/or trays or alternatively without any support on two layers.

The system consists of a continuous electronic movement with performance up to 30 packs/minute depending on the model of the packaging machine to which it is combined and the type of container to be packaged.

Reduction of packaging material costs

Easy storage and transport of the finished package

Possibility of creating different packaging formats

Customization of the gripping head

Applicable to different models of packaging machines



THANK YOU.

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