

Label production machines



GT 360 series



GT360 SERIES

Industry 4.0

Print, embellishment and finishing solutions

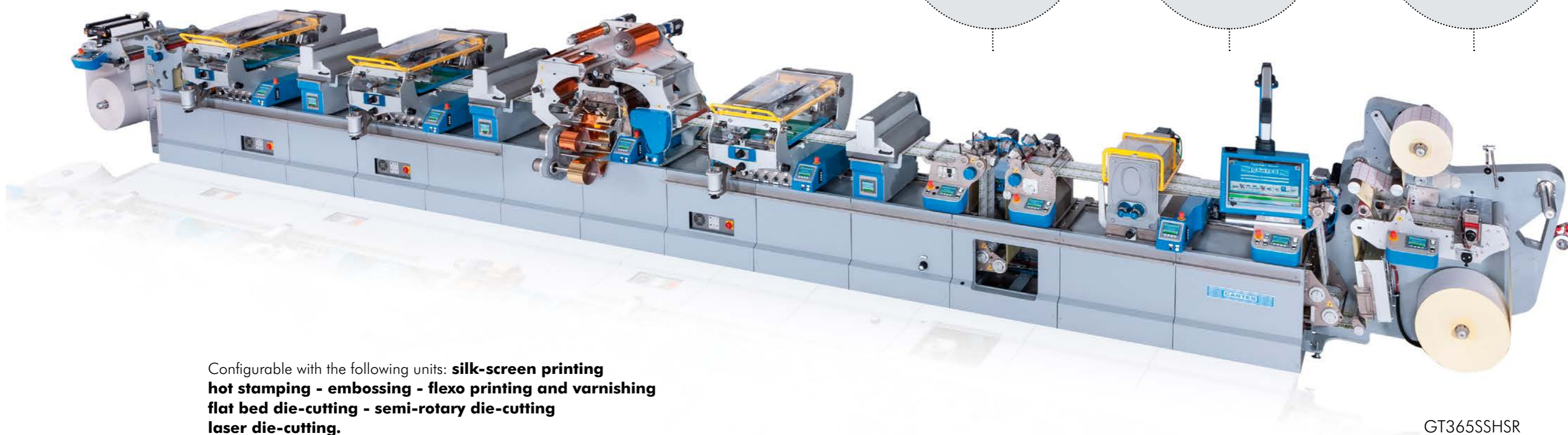
The GT360 series is an innovative series of modular label machines. The combined machines are very appreciated by the label producers as they can fulfill different applications in a single production cycle, creating labels of the highest value. The technologies applied to the GT360 series machines make them considered one of the best option on the market, not only for the finishing, but also for fulfilling complete high value labels with the maximum production efficiency.

CARTES has actually developed a unique and innovative technology that allows you to obtain the best results in terms of accuracy and productivity both for short and long runs.

**SPEED
AND
ACCURACY**

**ENERGY SAVING
TECHNOLOGY**

**EXTREME
MODULARITY
CONCEPT**



Configurable with the following units: **silk-screen printing**
hot stamping - embossing - flexo printing and varnishing
flat bed die-cutting - semi-rotary die-cutting
laser die-cutting.

Also available: **overlamination, cut off window system,**
double sided adhesive tape applicator and many others.

GT365SSHSR

Features that make CARTES machines the best in their category

Automatic centring devices

These machines are even more precise thanks to the new automatic Multi Head Positioning System (MHPS) that corrects, concurrently on each printing unit, the possible gap irregularities detected on pre-printed materials. Each printing and die-cutting unit is automatically positioned to ensure a perfect centering and minimizing the waste of material. This also reduces the time required for the initial settings and increases the working speed.

Energy saving technology

Through the use of the IGBT technology and the centralized management system, the machines Servo Motors and Servo Drivers allows the sharing of energy between the motors during the operation of the machine. The energy released by the Servo Motors during the braking phase, is reused and returned to the power grid. It follows an energy savings of 30% to 40%.

More safety for the operator

Thanks to the implementation of the security systems STO (Safe Torque Off), SS1 (Safe Stop), SBC (Safe Brake Control) and SLS (Safely Limited Speed), it is possible to obtain an effective protection of the operator, combining the safety to the practical needs required by the production.

Touch Screen

Each unit is equipped with a touch screen control panel in order to ease the setting and regulation of all the parameters

Extreme modularity

CARTES introduces an innovative modular machine design that allows you to, add and replace printing and die cutting units in the future with respect to the original configuration.

Remote control

Our remote diagnostic system allows a CARTES specialist to remotely access your machine and analyze the problem and, often, fix the issue you are having right away.

The remote connection also is a simple way to receive software updates as they are available in the future. If a service visit is necessary then one of our Service Engineers will arrive at your factory already knowing what the problem is, how to fix it, as well as what replacement parts are necessary.



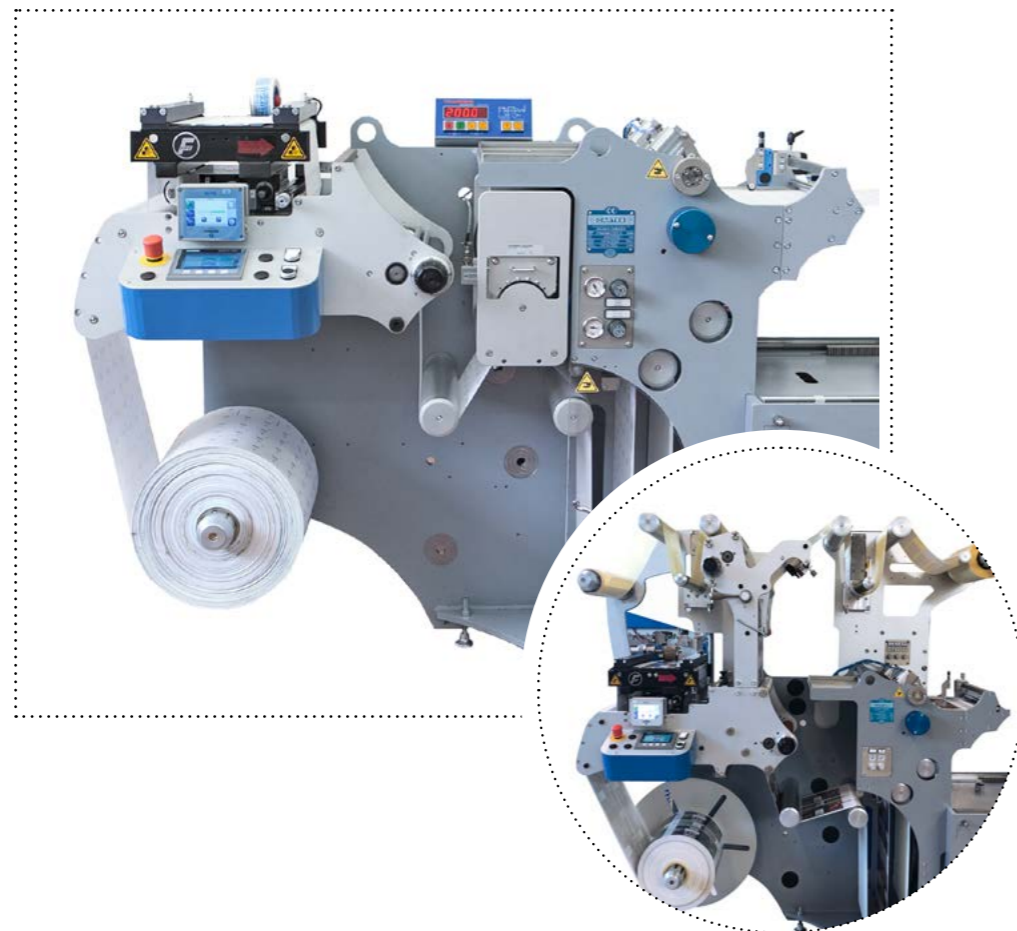
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GT360 SERIES

UI Material input

Compact unwinder supplied with servo-driven pulling unit.

Pneumatic expansion shaft Ø 76 mm (3 in), rolls of material with external diameter up to Ø 800 mm (31.5 in) or 200 Kg (440 lb).
Automatic diameter control of the reel with sensor for automatic stop function at the material end.
Electronic web guide with edge or printed line sensor.
Automatic stop function at minimum diameter.
Splicing table and adhesive tape dispenser.
Photocell for reading black mark or any other contrast color on preprinted materials.



Labels On Labels: label applicator in register

Compact unwinder equipped with Flexo unit.

FLEXO unit is available in three versions equipped with stepless UV dryer and TRESU closed chamber.

V

Unit able to work in full rotary mode.

Z

Unit for full rotary mode working, able for repeat cylinder changing (different Z values available).
Also, able for registering in full rotary mode.

W

Unit for semi-rotary mode working, also able for full rotary as well as for several repeat cylinder changing, including registering.



Full & spot printing and varnishing
Cold foiling application
Cast & Cure application
Selfwound overlamination
UV overlamination

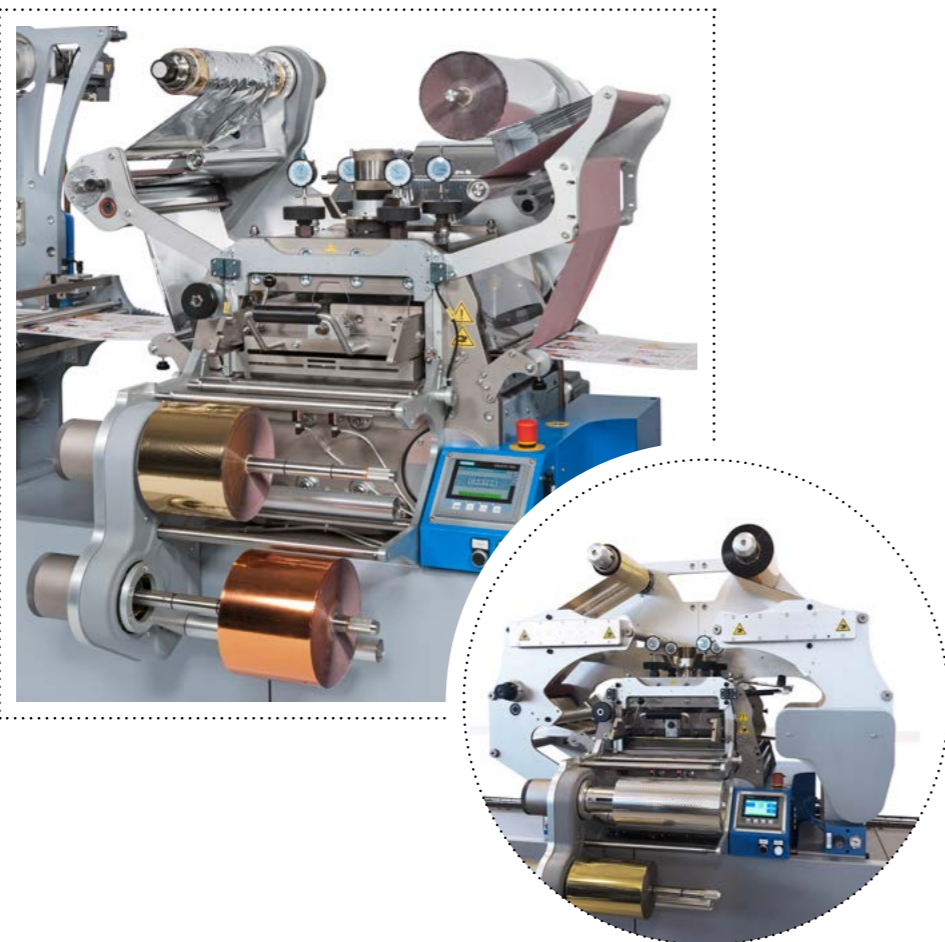
H Hot stamping

The CARTES hot stamping unit can print and emboss (even simultaneously), as well as apply holograms, overlamine and die-cut.

Thanks to an innovative system that manages the dynamism of the printing cycle, no matter the speed is, both during the start-up or the production, the unit keeps a constant contact time between the foil die and the material.

This always assures the best transfer of the foil and minimizes the setting time and the quantity of material needed to start a new job.

The hot stamping unit can feature up to three foil feeding systems (two in transversal and one in longitudinal direction) with multistep regulation to avoid foil wastening.



Hot stamping
Embossing
Hologram application
Lamination
Flat die-cutting
Depastillage Device (Cut off window system)

S Silk-screen printing

The silk-screen printing perfectly matches with the need of fulfilling intense coverages, accurate result in details and rich colours, to obtain highly brilliant and valuable products.

It is also possible to process embossing with Braille effect and spot varnishing.

This unit is supplied with a powerful UV dryer with stepless electronic management of the lamps that allows to flexibly adjust the power from 52 to 200 W/cm (or optional 29 to 250 W/cm), achieving the minimum consumption in stand-by mode.

The automatic ink feeding system (optional) allows to keep a constant spread during the printing and also markedly reduces the intervention of the operator.



Full background & spot printing
Flat varnishing
High build varnishing & Braille effects
Soft-Touch & Materic effects
Metal Doming
Scratch off

F

Flexo printing and varnishing

The CARTES semi-rotary flexo printing & varnishing unit with gearless system is completely controlled by servo motors and equipped with devices that facilitate operator's work.

The application and replacement of the flexible die can be done in a few seconds thanks to the opening on the top that allows the operator an ease access to the cylinder. All data processing and parameters are visible in real time on the display and can be saved into the computer of the machine to be quickly reused.



Full & spot printing and varnishing

Cold foiling application

Cast & Cure application

Selfwound overlamination

UV overlamination

This software makes possible to automatically adapt the polymer plates created for cylinders of different development.

Image Distortion System (IDS)

R

Semi-rotary die-cutting PATENTED

The CARTES semi-rotary die-cutting unit with gearless system is completely controlled by servo motors and equipped with devices that ease the operator's work.

The application and replacement of the flexible die can be done in a few seconds thanks to the opening top cover that allowing the operator an easily access to the cylinder.

All data processing and parameters are visible in real time on the display and can be saved into the computer of the machine to be quickly reused.



Air Gap System (AGS)

The innovative AIR GAP SYSTEM electronically adjust the distance between the die and the material, controlling the cutting depth with extremely accuracy.

By setting the die thickness from 0,4 mm (1/64 in) to 2 mm (5/64 in) and the liner thickness, become very easy to get a perfect die-cutting from the first cycle.

System is complete with safety features that avoids the possible breaking of the die caused by a wrong adjustment.

Image Distortion System (IDS)

This software makes possible to automatically adapt dies created for cylinders of different development.

Moreover, the software can widen or narrow up to 20% and maximum Five die-cutting paths keeping constant the interspace between them.

Thanks to this distortion it is possible to use flexible dies created for magnetic cylinders with other developments and also to obtain a wider range of shapes with no need to buy and store new dies.

L

Laser die-cutting

PATENTED

The **CARTES LASER CONVERTING UNIT** is the only existing on the market with an unlimited lifetime & Semi-sealed source that guarantees constant power and cutting quality, reducing to minimum management and maintenance costs.

Thanks to the Radio Frequency Laser power control and "Cut on the fly" software the machine can achieve maximum performance as it is possible to process in a single cycle any shape die-cutting & cut through, micro-perforation, engraving, progressive and regressive numbering. All these jobs are digitally programmable in order to get products of the highest value in real time.

Today, **Laser converting** technology is, without any doubt, the most versatile solution on the market, being available in **SINGLE** or **DUAL** versions, in 350 W, and it is suitable for paper & films.

Management software with option for automatic saving of production parameters.

CARTES never ceases to amaze.

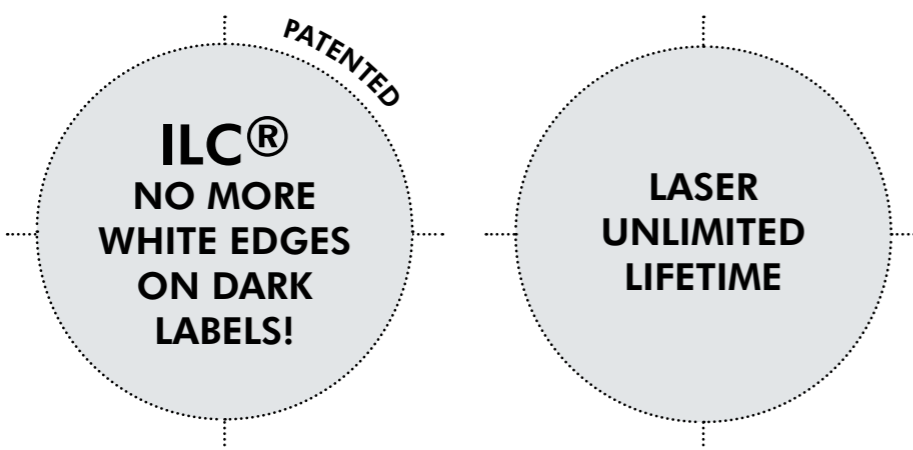
Already "pioneers" in Laser technology application in the self-adhesive label market, **CARTES** has developed a new "solution" named:

ILC® - INVISIBLE LASER CUTTING.

It is now possible to die-cut dark printed labels avoiding the typical and unsightly "white edge".

Moreover, the same system prevents adhesive from overflowing out of die-cutting label edges (glue bleed).

Thanks to the **ILC® system** there are no limits in processing materials with extremely thin liners (a few micron thick) including films, die-cutting and stripping "impossible shapes" or even linerless materials like IML labels.



Die-cutting, converting and matrix stripping of "impossible shapes"
Suitable for paper and plastic films
Perforation & micro-perforation
Etching
Engraving
Full Cutting with also automatic pieces extraction
Kiss cutting
Numbering
Automatic workflow by the "Barcode reader"

D

Flat bed die-cutting

The CARTES flat bed die-cutting unit can also make embossing. This unit develops a high pressure thanks to the movement operated by the double knee-joint and also stands out for the following features:

- the holder plate pivot for a fast set up of the cliché or the die, as well as make easy their replacement.
- The machine is equipped with four micrometrical adjusting points with four centesimal gauges that are located on all four corners of the platen. This feature is beneficial to the operator to assist with fast and efficient press make-ready.



Paper & films Die-cutting
Embossing & Debossing, even simultaneously
Creasing & Scoring for cardboards
Grain effect

UO

Material output

RC 360

Integrated rewinder with longitudinal slitting and waste removing systems

Fully servo assisted rewinding system, supplied with two air expansion shafts Ø 76 mm (3 in) with automatic tensioning control, one for rolls of material up to Ø 800 mm (31.5 in) and the second for rolls up to Ø 500 mm (20 in). Also, one air expansion shaft Ø 76 mm (3 in), with motorized stripping system for rolls of waste up to Ø 620 mm (24.4 in). Rewinding shafts enabled for clockwise and counter-clockwise spinning.

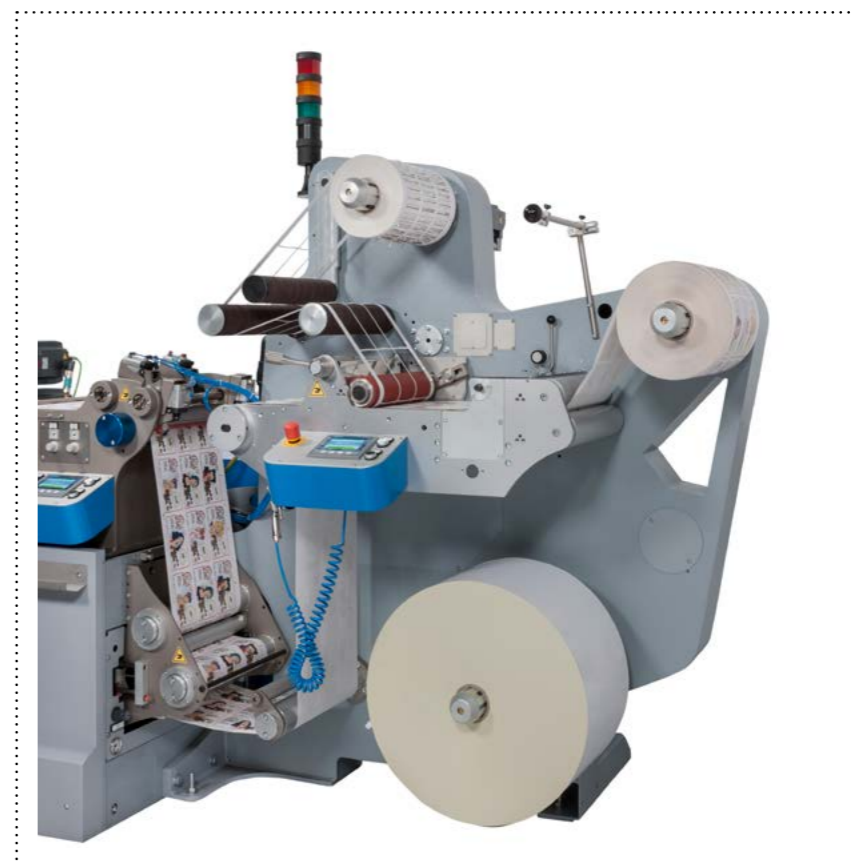
RC 360 L - supplied with a slitting system by ten razor blades

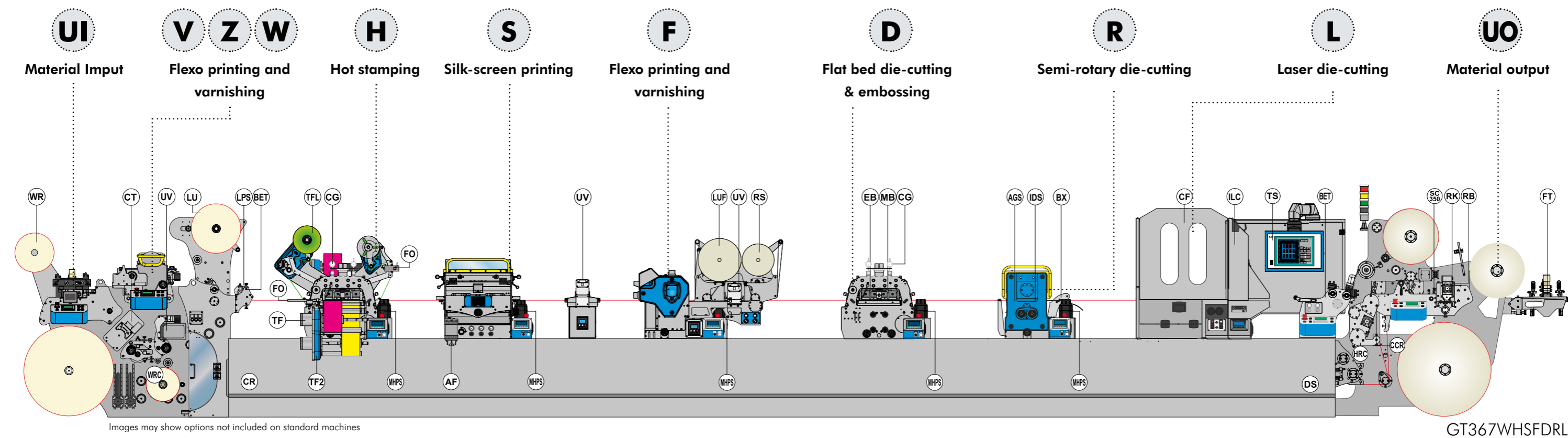
RC 360 LC - supplied with a slitting system by five shear blades.

RCS 360

Rewinder with single shaft

Servo assisted rewinder with one air expansion shaft of Ø 76 mm (3 in) for rolls up to Ø 800 mm (31.5 in) and one matrix rewinding shaft Ø 76 mm (3 in) for roll up to Ø 620 mm (24.4 in).





Legend

UI	Material Input	H	Hot stamping	RS	Cold foil waste rewinder	L	LASER die-cutting unit
CT	Corona treatment	TF	Transversal foil feeder	UV	UV lamp	CF	Cutting unit in continuous mode «Cut-on-the-fly»
LPS	Label Position System	TF2	Second Transversal foil feeder	MHPS	Multi Head Positioning System	ILC	Invisible Laser Cutting system
BET	Electronic tensioning system	TFL	Longitudinal foil feeder	D	Flat bed die-cutting & embossing unit	TS	Touch screen control panels
CR	Remote connection	FO	Photocell for hologram application	EB	Flat bed die-cutting & embossing unit	DS	Smart & Data Storage
V	Flexo printing and varnishing full rotary mode	MHPS	Multi Head Positioning System	MB	Magnetic box	UO	Material output
Z	Flexo printing and varnishing full rotary mode	S	Silk-screen printing unit	CG	Pressure gauges	SC 350	Label inspection system
	and possibility to change the printing cylinder	AF	Automatic ink feeder	MHPS	Multi Head Positioning System	RK	Slitting with scissor blade system
W	Flexo printing and varnishing full & semirotary mode	UV	UV lamp	R	Semi-rotary die-cutting	RB	Slitting with razor blade system
WR	Liner/waste rewinder	MHPS	Multi Head Positioning System	AGS	Air Gap System	CCR	Back score slitting
LU	UV lamination	F	Flexo printing & varnishing unit	IDS	Image Distortion System	HRC	Easy wastening heating plate
LU+WRC	Cold Foiling System	LUF	UV lamination	BX	Splicing table for box stacking	FT	Extractable spicing top at line end

This catalogue may include inaccuracies or typographical errors.
Cartes may make improvements and/or changes in the products, at any time without notice.



Technical data		Industry 4.0
General	Max web width	360 mm - (14 in)
	Min web width	100 mm - (4 in)
	Max unwinding/rewinding roll diameter	800 mm - (31.5 in)
	Maximum matrix roll diameter	620 mm - (24.4 in)
	Motorized stripping system	included
Longitudinal slitting	Slitting with swinging razor blades	min 15 mm - (0.6 in)
	Shear knives	min 15 mm - (0.6 in) optional
Flexo printing and varnishing unit	Repeat length on semi-rotary	up to 350 mm - (13,8 in)
	Running speed in full rotary mode	up to 120 m/min - (393.7 ft/min)
UV Curing System	Stepless Power	from 40 to 160 W/cm
Semi-rotary die cutting unit with AGS® and IDS®	Flexible dies thickness with Air Gap System	up to 2 mm - (5/64 in)
	Dies adjusting range with Image Distortion System	+/- 20% of real cutting lenght
	Max tool repeat (22.3"/25.5"/30")	(508/560/610) mm - (20/22/24) in
	Max cutting lenght with IDS ® (22.3"/25.5"/30")	(610/680/900) mm - (24/26.7/35.4) in
	Running speed with 22.3" (Z 179)	up to 65 m/min - (213 ft/min)
	Running speed with 25.5" (Z 204)	up to 75 m/min - (246 ft/min) optional
Silk-screen unit	Running speed with 30" (Z 240)	up to 85 m/min - (278 ft/min) optional
	Max printing area	(350 x 320) mm - (13.8 x 12.6) in
	Printing area adjustable	from 20 to 350 mm - from 3/4 to 13.8 in
	Automatic inking pump system	optional
	Max strokes/hour	7800

UV stepless curing system	Standard UV Curing system, 220 mm (8.7 ")	from 52 to 200 W/cm
	Advanced UV Curing system, 320 mm (12.6")	from 29 to 250 W/cm - optional
	Max UV curing repeat	220 mm - (8.7 in) or optional 320 mm - (12.6 in)
Hot stamping & embossing unit	Standard printing area	350 x 310 mm - (13.8 x 12.2) in
	Wider printing area	350 x 356 mm - (13.8 x 14) in
	Tonnage (Stamping &/or Embossing)	38 Ton
	Max strokes/hour	18000
Flat bed die-cutting & embossing unit	Standard die-cutting/embossing area	350 x 310 mm - (13.8 x 12.2) in
	Wider printing area	350 x 356 mm - (13.8 x 14) in
	Tonnage (Die cutting &/or Embossing)	38 Ton
	Max strokes/hour	18000
Laser die cutting unit	Working area	up to 350 mm - (13.8 in)
	Unlimited life time Laser source	semi-sealed® CO2 self-refilling
	Single Laser power	350 W
	Double Laser power	350 W + 350 W
	Cutting path speed	up to 700 m/min - (2300 ft/min)
	Cutting spot size	170 µm
	Running speed	up to 120 m/min - (393.7 ft/min)
Others	Further optionals may be available soon	



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