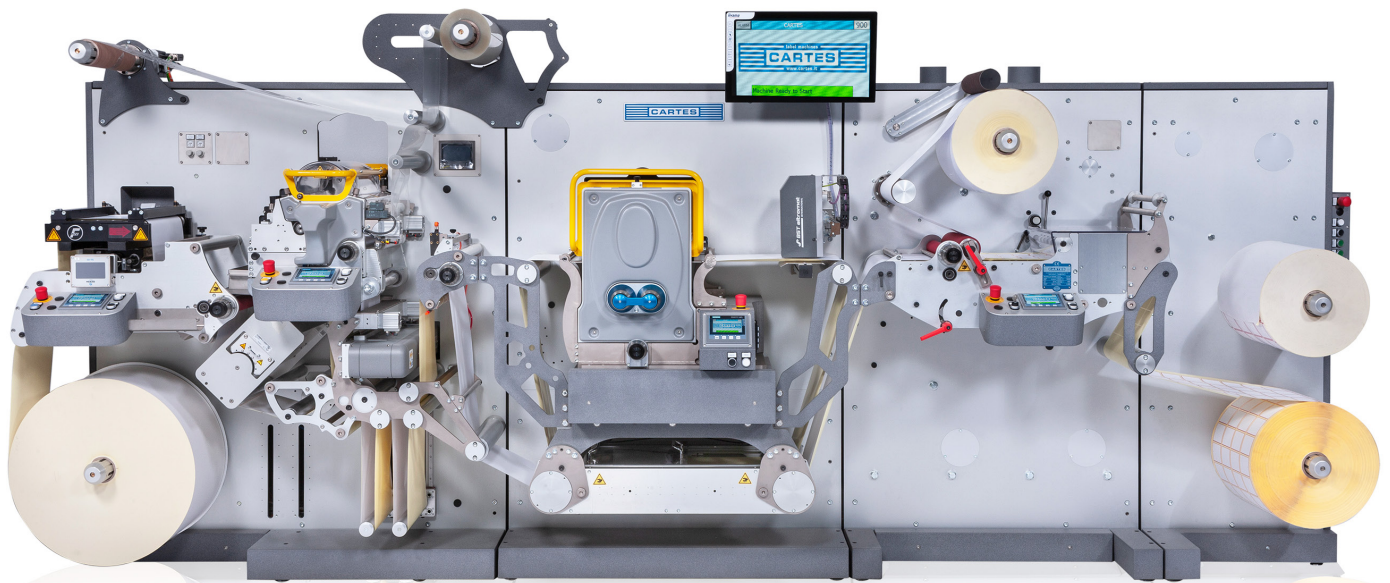


GEMINI series

Finishing solutions for labels



GE362VR T-line



GEMINI SERIES

T-line

The finishing solutions

The high demand for customization and on-demand solutions is the current driver behind the worldwide label press market.

Industry 4.0

Consumers want a competitive, high end, multi functional, adaptable machines, and new solutions to old problems. Already "pioneers" in the application of Laser technology in the self-adhesive label market, thanks to the **ILC® INVISIBLE LASER CUTTING** system, the Gemini machines now make it possible to die-cut dark printed labels without the typical and unsightly "white edge".



GE362WL T - line

Configurable with the following units:

**Flexo printing and varnishing - Semi-rotary die-cutting
Laser die-cutting.**

Also available: **overlamination, cold foil applications, ILC®,
IML label processing** and others.

GEMINI SERIES Features

Maximum accuracy

Automatic centring device:
The machines can correct the possible gap irregularities detected on pre-printed materials, ensuring a maximum precision.

Energy saving

The IGBT technology and the centralized management system of drives power supply allow sharing energy between the motors during the operation of the machine; the energy released by the motors during braking phase is reused or even returned to the power grid that results in energy savings from 30 up to 40%.

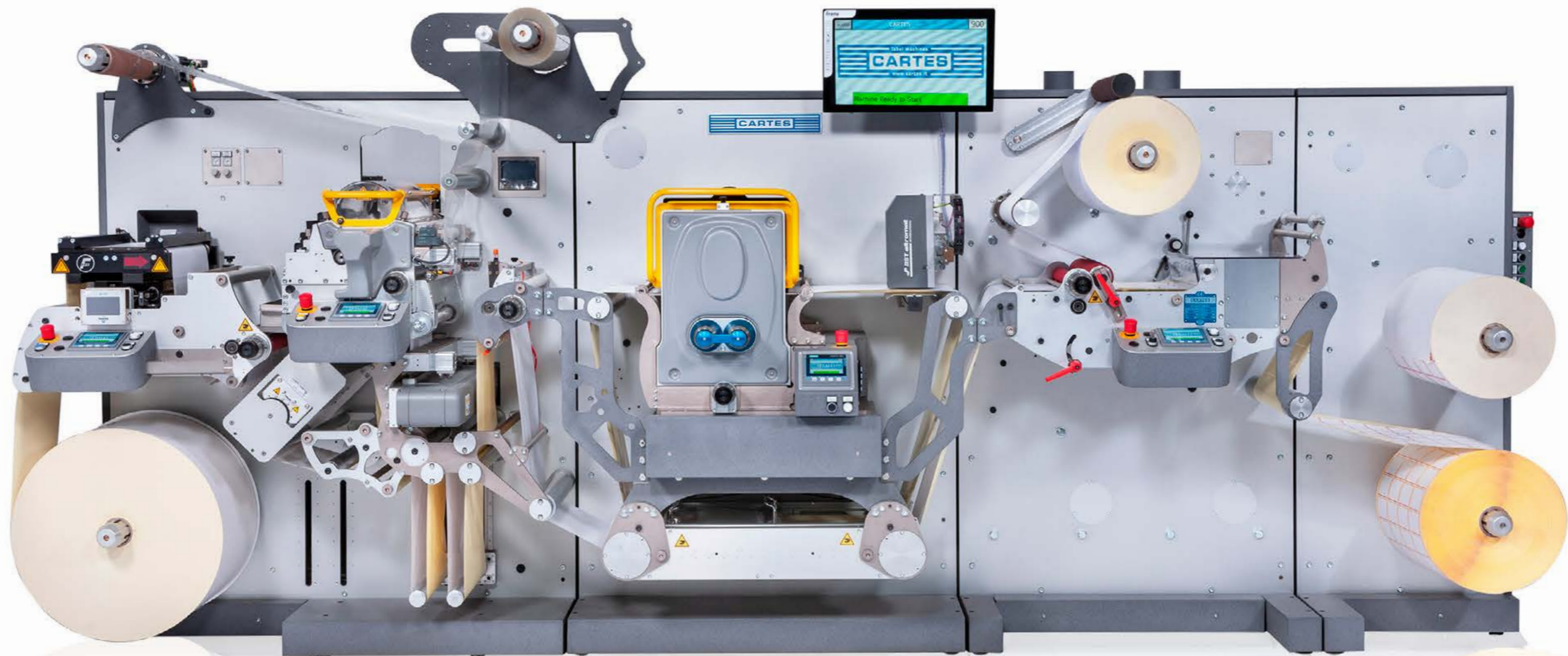
Easy operation

Each unit is equipped with a independent touch screen control panel in order to ease the setting.

Remote connection

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.



GE362WR T - line

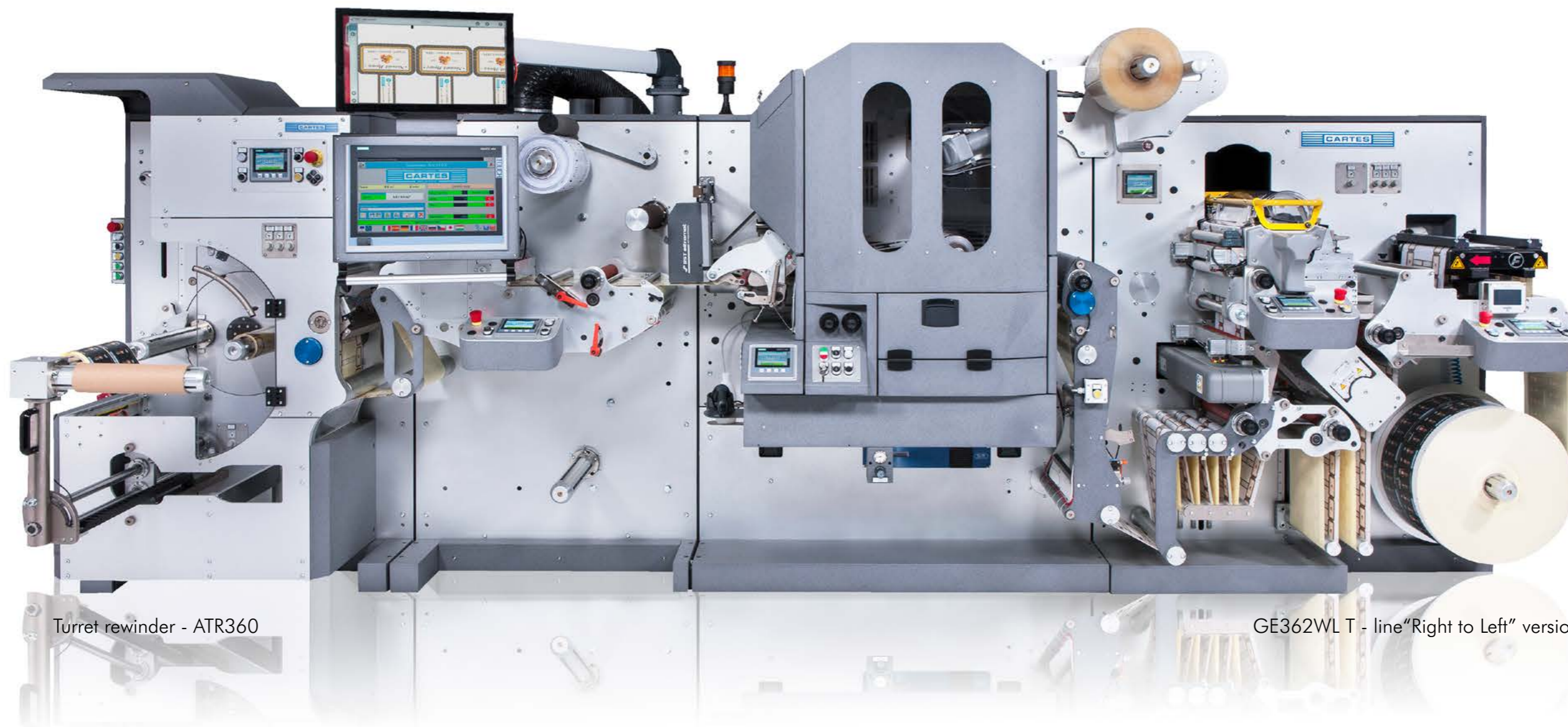
GEMINI SERIES

Configured with: **Flexo printing and varnishing unit, dual Laser head, ILC®**, **Automatic slitting positioning** and **ATR 360 Turret rewriter** for further automation.



In-line/off-line solution

Buffer for higher versatility to convert labels either in-line or off-line. Available in "Left to Right" and "Right to Left" web workflow versions.



Turret rewriter - ATR360

GE362WL T - line "Right to Left" version

GEMINI 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.



Flexo varnishing & protecting

FLEXO varnishing 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 varnishing**
- Cold foiling application**
- Cast & Cure application**
- Selfwound overlamination**
- UV overlamination**

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.

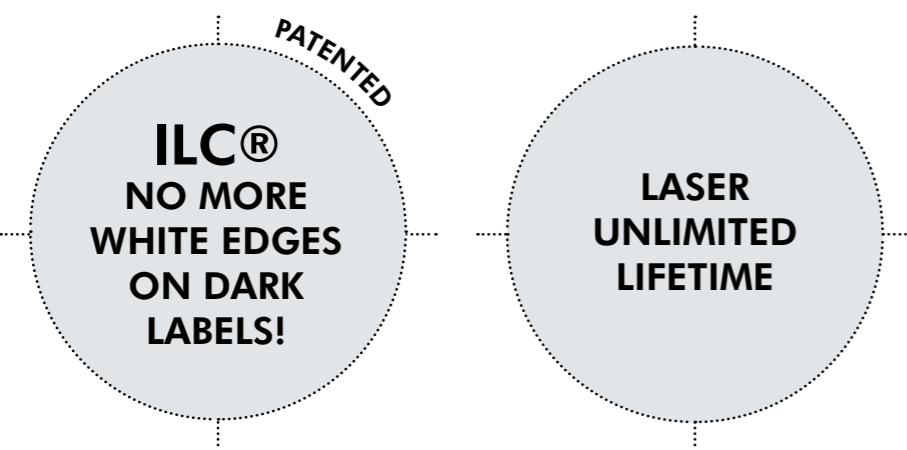
Already "pioneers" in Laser technology application in the self-adhesive label market, **CARTES** has developed a new "solution" named:

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"

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®)

(Available for T-LINE versions)

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.

UO Material output

Rewinder with longitudinal slitting and waste removing systems configured as follows:

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).

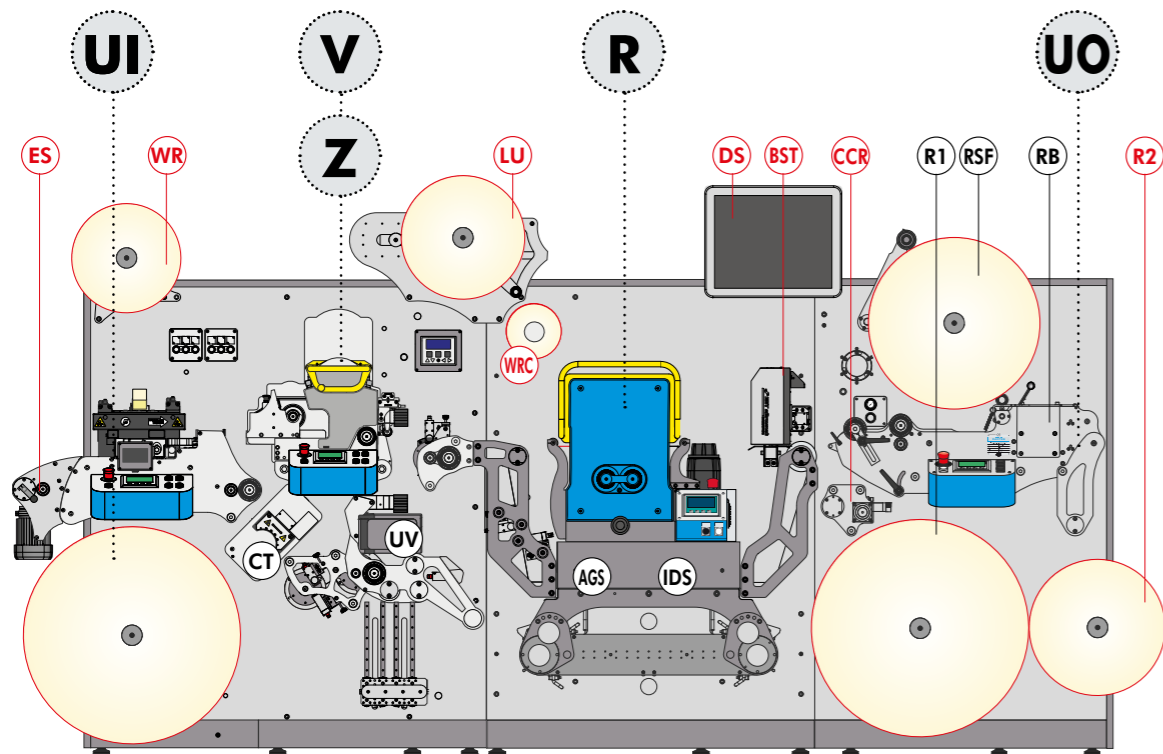
Also, one air expansion shaft Ø 76 mm (3 in), with motorized stripping system for rolls of waste up to Ø 620 mm (24.4 in).

Rewinding shafts enabled for clockwise and counter-clockwise spinning.

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

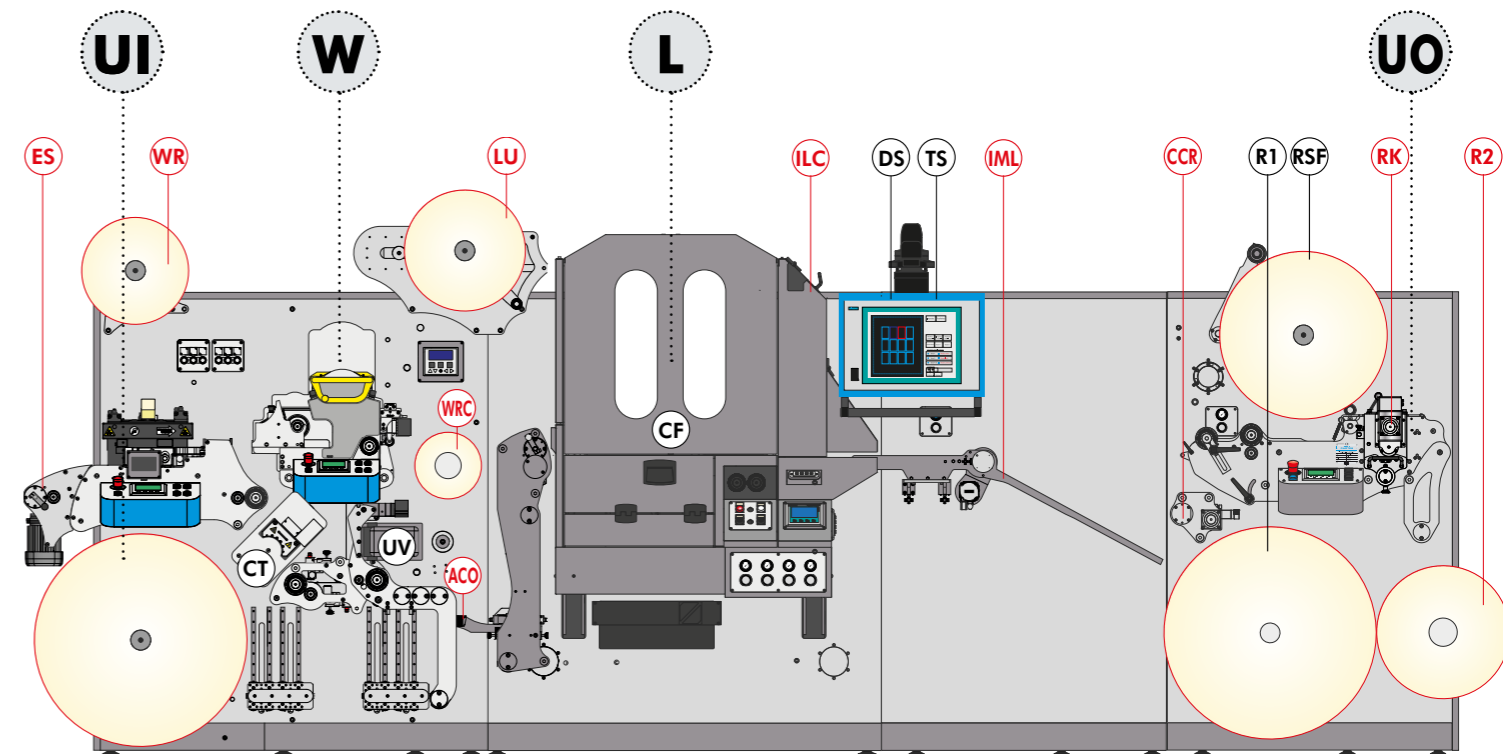
RC 360 LC - supplied with a slitting system by five shear blades.





Images may show options not included on standard machines

GE362VR



Images may show options not included on standard machines

GE362WL

Legend

Modular Unit / Standard device

UI	Material Input	AGS	Air gap system
CT	Corona treatment	IDS	Image distortion system
CR	Remote connection	L	LASER die-cutting unit
UV	UV lamp	CF	Cutting unit in continuous mode «Cut-on-the-fly»
V	Flexo printing and varnishing full rotary mode	TS	Touch screen control panels
Z	Flexo printing and varnishing full rotary mode	UO	Material output
	and possibility to change the printing cylinder	R1	Rewinding shaft
W	Flexo printing and varnishing full & semirotary mode	RSF	Waste rewinder
R	Semi-rotary die-cutting	RB	Slitting with razor blade system

Accessories

ES	Infeed waste rewinder
LU	Lamination
WR	Liner / Waste rewinder
WRC	Cold foil / Waste rewinder
ILC	Invisible Laser Cutting System
IML	In-Mould Label (IML) processing system
ACO	Barcode reader for an automatic workflow
DS	Smart & Data Storage for saving all the working parameters and settings
BST	POWERScope - Label video inspection system
CCR	Back score slitting
RK	Shear blade slitting
R2	Second rewinding shaft



GE362WL T - line

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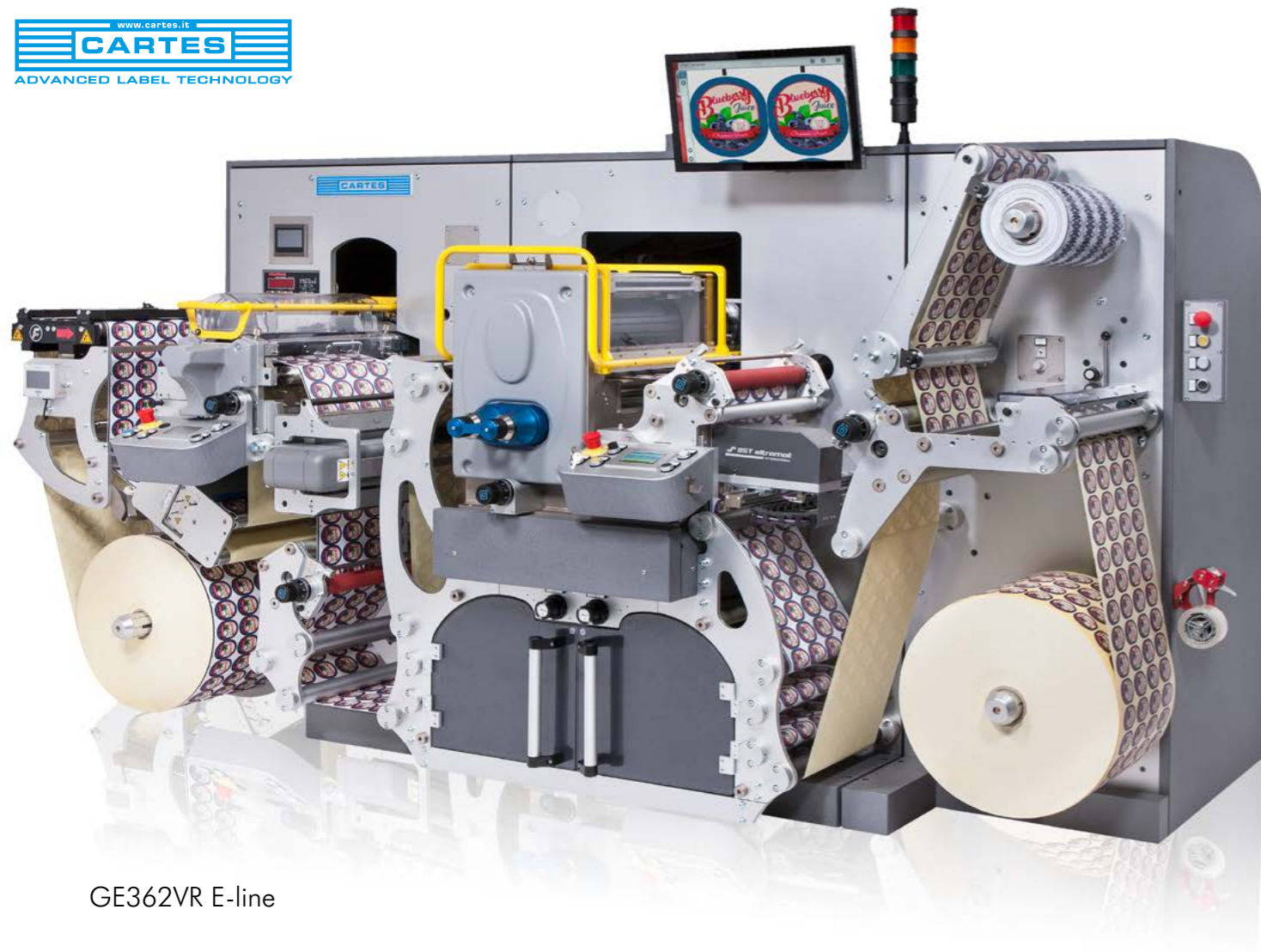
Industry 4.0



GE362VR T - line

Technical data

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 180 m/min - (590 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 length
	Max tool repeat (22.3"/25.5"/30")	(508/560/610) mm - (20/22/24) in
	Max cutting length 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 90 m/min - (295 ft/min)
	Running speed with 25.5" (Z 204)	up to 110 m/min - (360.9 ft/min) optional
	Running speed with 30" (Z 240)	up to 130 m/min - (426.5 ft/min) optional
Laser die cutting unit	Working area	up to 350 mm - (13.8 in)
	Unlimited life time Laser source	semi-sealed® CO ₂ 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 180 m/min - (590 ft/min)
Others	Further optionals may be available soon	



GE362VR E-line



GEMINI SERIES

E-line

Industry 4.0

Configurable with the following units:

Flexo printing and varnishing - Semi-rotary die-cutting - Laser die-cutting
 Also available: **overlamination, cold foil applications, ILC®, IML label processing** and others.

Technical data

General	Max web width	360 mm - (14 in)
	Min web width	100 mm - (4 in)
	Max unwinding & rewinding roll diameter	600 mm - (23.6 in) or optional 800 mm - (31.5 in)
	Maximum matrix roll diameter	650 mm - (25.6 in)
	Pneumatic contact stripping system	included
	Motorized stripping system	optional
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 150 m/min - (492 feet/min)
UV Curing System	Stepless Power	from 40 to 160 W/cm
Semi-rotary die cutting unit with AGS®	Flexible dies thickness with Air Gap System	up to 2 mm - (5/64 in)
	Max tool repeat (22.3"/25.5"/30")	(508/560/610) mm - (20/22/24) in
	Running speed with 22.3" (Z 179)	up to 70 m/min - (229 ft/min)
	Running speed with 25.5" (Z 204)	up to 80 m/min - (262 ft/min) optional
Laser die cutting unit	Running speed with 30" (Z 240)	up to 90 m/min - (295 ft/min) optional
	Working area	up to 350 mm - (13.8 in)
	Unlimited life time Laser source	semi-sealed® CO ₂ self-refilling
	Single Laser power	350 Watt
	Double Laser power	350 W + 350 W
	Cutting path speed	up to 700 m/min - (2300 ft/min)
Others	Cutting spot size	170 μm
	Running speed	up to 150 m/min - (492 ft/min)
	Further optionals may be available soon	

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