

LABEL R2R

LASER CUTTING & MARKING



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LABELR2R in modern labelling different used materials and more and more complex patterns for labels, require the use of more and more specialized and innovative technologies during the varied process phases from unrefined material to finished product already full of high-added-value exterior treatments .

Die-cutting is an important aspect of the process generally solved by mechanical solutions exclusively oriented to big volumes while about small ones LASER technology has been introduced as innovative solution when there is a demand of fragmented stocks and just in time beyond to a continuous cost reduction.

In this market sector LASER technology improves upon the elimination of die-cuts, a major use and pattern flexibility, a set-up quickness, the capacity of operating onto different material typologies, with feeding-register automatic groups, further to the possibility of operating in-out of line with printing group.

LABELR2R allows to execute in one step sophisticated and complex kiss-cutting and cutting geometries, marking, progressive codification, micro-perforation, perforation, unthinkable with current mechanical punching machines.

Thanks to the amazing interaction of laser with a wideness of organic and synthetic materials, coatings and inks, special chromatic effects can be obtained, opening new application frontiers to labelling for beverage, food, pharmaceutical, fashion industries and so on.

Further elements at laser technology advantage are an high operational flexibility and very reduced fitting times, besides the possibility to work on customer's semi-finished materials, constantly at obsolescence's risk, changing in real time texts, graphics, bar codes or data matrix, up to the possibility to insert anticounterfeiting elements.

TECHNICAL FEATURES

General

- | | | |
|--|--------------------------------|--|
| • Web speed: | 60 mt/min [196 ft/min] | • Single sheet work area |
| • Max work area: | 350 x 350 mm [13.78" x 13.78"] | • Cold-rolling unit. |
| • Max bobbin height: | 360 mm [14.17"] | • Slitting unit equipped with No.3 cutters for longitudinal cut. |
| • Max bobbin diameter: | 350 mm [13.78"] | • Bobbin winder with speed control. |
| • Max bobbin weight: | 60 Kg [27 lb] | • Scrap holder for rolling unit |
| • Electronic step control, repeatability: ± 0,05 mm [0.002"] | | • HW/SW system for longitudinal drift control |
| | | • Junction table with holding clamp. |

Laser source

- | | |
|------------------------------|------------------------------|
| • Source | CO ₂ |
| • Power (Watt): | 115238 |
| • Peak power (Watt) | >230 >480 |
| • Frequency (kHz): | 0,1 – 50 |
| • Pumping: | RF discharge |
| • Cooling: | H ₂ O closed loop |
| • Estimate average lifetime: | 10.000 h |

Scanning head

- | | |
|------------------------------|-----------------------------|
| • Focal (350x350): | 435 mm [17.13"] |
| • Work area (mm): | 350 x 350 [13.78" x 13.78"] |
| • Spot diameter: | ≈330 μm [0,013"] |
| • Writing speed (linear): | > 3m/sec [> 118"/sec] |
| • Writing speed (raster): | > 5 m/sec [> 197"/sec] |
| • Positioning speed: | > 5 m/sec [> 197"/sec] |
| • Aiming beam: diode pointer | 650 nm |

Options

- | | |
|--|---|
| • Double winding | Auxiliary bobbin winder with torque control Cutting unit with 5 rotating-blade knives. |
| • Adhesive film connection | Adhesive film unwinder- out of gear with adjustable clutch Motor winder with torque control for adhesive protection film |
| • AM-Drive-RCM Software | AM Drive RCM software option enables by internet connection to activate a tele-assistance service. AM tele-assistance operative station can this way enter directly the system installed by client to carry out all system diagnosis activities and assistance to operator. |
| • LSU slitting laser unit | LSU (Laser Slitting Unit) option enables to carry out oblique cuts respect to bobbin unwinding, increasing notably system flexibility and enabling cutting geometries impossible by normal knife units and reducing sensitively material consumer. |
| • ECO-2500 smoke exhauster | |
| • Activated carbon filters EOLO THC 400 smoke exhauster | |

AM has the right to modify the features mentioned in own catalogues at any time and without any notice.



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