Rewinder range

Global market leader
in the design and
manufacture of specialist
rewinding solutions

abg
International

Omega 150

Inspection · Slitting · Numbering

The functions of the Omega 150

- Rewinding and inspecting to create a perfect finished roll
- Meter count, label count and diameter reconciliation
- Label inspection by fleyeVision print inspection or barcode-scanner
- Bidirectional and 100 % print inspection
- Web width up to 210mm, roll weight up to 20 kg
- Adjustable web tensions
- Machine prepared to accept the addition of ink jet numbering in the future
- Standing and sitting operation possible

- integrated controller for the back and front side printing
- Easy adjustment of ink jet print position
- splice and missing label handling
- leader and trailer
- error stop in case of a missing print
- workflow solutions for use with vision system and inkjet (entire product tracking)
- signal monitoring etc.

Print inspection

Slitting

Inkjet printing

Inkjet printing

Touchscreen operation

Web guide

clear-on-clear labels

A universal sensor enables the inspection of paper and clear on clear labels.

Bidirectional rewinder

The bidirectional rewinder is designed for 100% inspection and converting of single lanes. An error which is detected by the vision system will be positioned back right in front of the inspection system where the operator can take corrective action. The corrected web then passes back under the camera to be checked again.

This process guarantees that no labels are uninspected and the inspected material conforms 100% your quality requirements.

Inkjet / print options

The Omega 150 is designed for an additional inkjet system for numbering consecutive or predefines numbers on the front or back side of the web. (Expiry date, security codes, track-and-trace). CIJ, DOD or PIEZO- ink jet systems can be integrated and the printer will be controlled and monitored by our specifically designed software.

Omega 510

Uni / Bidirectional rewinder and inspection machine

Omega 510 – designed for converting

Rewinding, converting, inspecting, numbering, fully automatic processes, handling foil and blister material or the finishing of booklets - the Omega 510 is a machine for every application.

The machine is modular and fully servo driven, each one is individually designed for your personal requirements. Innovative PC / SPS control technology are used throughout.

Technical features

- web width 330 mm, 430 mm or 530 mm
- roll diameter of the unwind 750 mm (larger diameters possible)
- roll diameter of the rewinder 500 mm (larger diameters possible)
- pneumatic mandrels 76 mm (optional between 38 mm and 150 mm)
- winding speed up to 200 m/min
- drive technology via servo drives
- longitudinal slitting unit with rotary scissor knives including 3 knives
- web guide at unwind (positioning of the complete unwinding web) and a second web guide in front of the rewinder
- latest SPS / PC based control system
- easy job file save and restore
- remote support via internet, support on its highest level
- JDF compatible

Options

- second rewinder
- bulk waste rewinder
- web buffer
- razor blade slitting unit
- crush knives
- fleyeVision 100% print inspection
- Clear on Clear sensors
- cross cutter, from roll to sheet
- flyCut slitting guide
- back side numbering
- number and barcode inspection
- print systems
- booklet options
- roll lifter

Omega 510 including crush knifes, cross cutting and automatic workflow

Omega 510 Numerous applications from one high technology platform.

Special designed web path for booklets, bigger rollers, special web guide and sympathetic web path

Crush knives and flyCut slitting control

Omega 2010 / 3010

The complete solution for 100% inspection, rewinding, printing and cutting

Inspection of multi lane web in one operation: rewinding, 100% inspection, numbering, slitting and converting by using a dynamic buffer system.

The PC based operation of the machine is connected to the vision system which makes it possible to track and control error labels.

Error Detection

In case of an error the web will be stopped very smoothly under full control without any movement at the slitting or printing unit.

The defective label will be positioned back in front of the camera, using the material from the web buffer.
The label can be inspected and corrected by the operator.

After the correction / replacement the label will be again inspected by the vision system. The buffer is fully filled again and the whole web starts to move.

The Buffer

The fully automated Buffer of the Omega 2010/3010 is the heart of the machine.

By using the buffer it is possible to run each process at the same time; inspection, slitting, numbering and converting.

As soon as an error is detected the vision system fleyeVision stops the machine very smoothly.

The error is now positioned inside or in front of the buffer. The error is then repositioned from the buffer to the splicing table for correction.
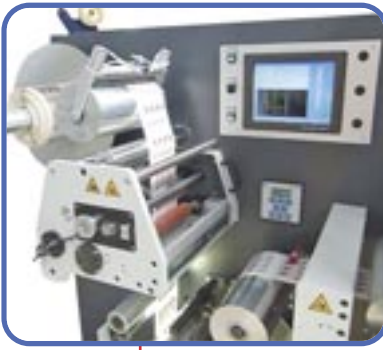
Numbering with inkjet system

The inkjet system in fully integrated into the Omega 2010 / 3010. All features of the inkjet will be controlled by the machine computer.

After the job is set up the data for the numbering can be entered using a simple menu:
• number of labels across
• start- and endnumber of the reel
• ascending and descending numbers
• font
• position of the number

Camera controlled slitting
unit (flycut)

**Converting of booklet-
Labels with the Omega 3010**

Because of the large diameter rollers and optional third web guide the
Omega 3010 is able to inspect, slit and number booklets.

In case of self-opening booklets which need to run without the buffer it is
necessary to separate the inspection from slitting and numbering by using
two passes through the machine

Second rewinder option

**All steps of the
final inspection
are combined
into one operation -
100% security
for pharma
departments**

Web guide

By moving the
complete unwinder unit
across, the web can be
guided easily during forward
and backward run.

The one for everything

**Confidents is good –
safety is everything!**

Omega 2010 / 3010

Available modules

fleyeVision print inspection

UV barcode and ultraviolet inspection

Braille inspection

fleyeVision OCR, camera inspection of the back side numbering

Second, servo driven rewinder

Inkjet controller for numbering

FlyCut slitting control unit

Leader and trailer (fully automatic label dispensing for leader and tails)

Razor blade or crush knife unit

Technical features

roll width	330 mm (optional 430 mm)
roll weight unwind	up to 150 kg
roll weight rewinder	up to 100 kg
core diameter	76 mm (optional: 38 to 150 mm)
winding speed	max. 200 m / min
inspection speed	depending on the camera equipment and the parameter set up
web tension	0,5-12 kg
web guide	Fife remote support via internet connection
dimensions	ca. 4.900 mm x 1.400 mm x 1.900 mm (length x width x height)
pneumatic	6 bar
power supply	3 phase x 400 V / N / E 50/60 Hz, 50 A

Available options overview:

- fleyeVision print inspection
- UV barcode and ultraviolet inspection
- braille inspection
- fleyeVision OCR, camera inspection of the numbering
- leader and trailer (full automatic label dispensing for leader and trailer)
- Inkjet controller for numbering
- flyCut slitting control
- second, servo driven rewinder
- razor blade or crush knife unit

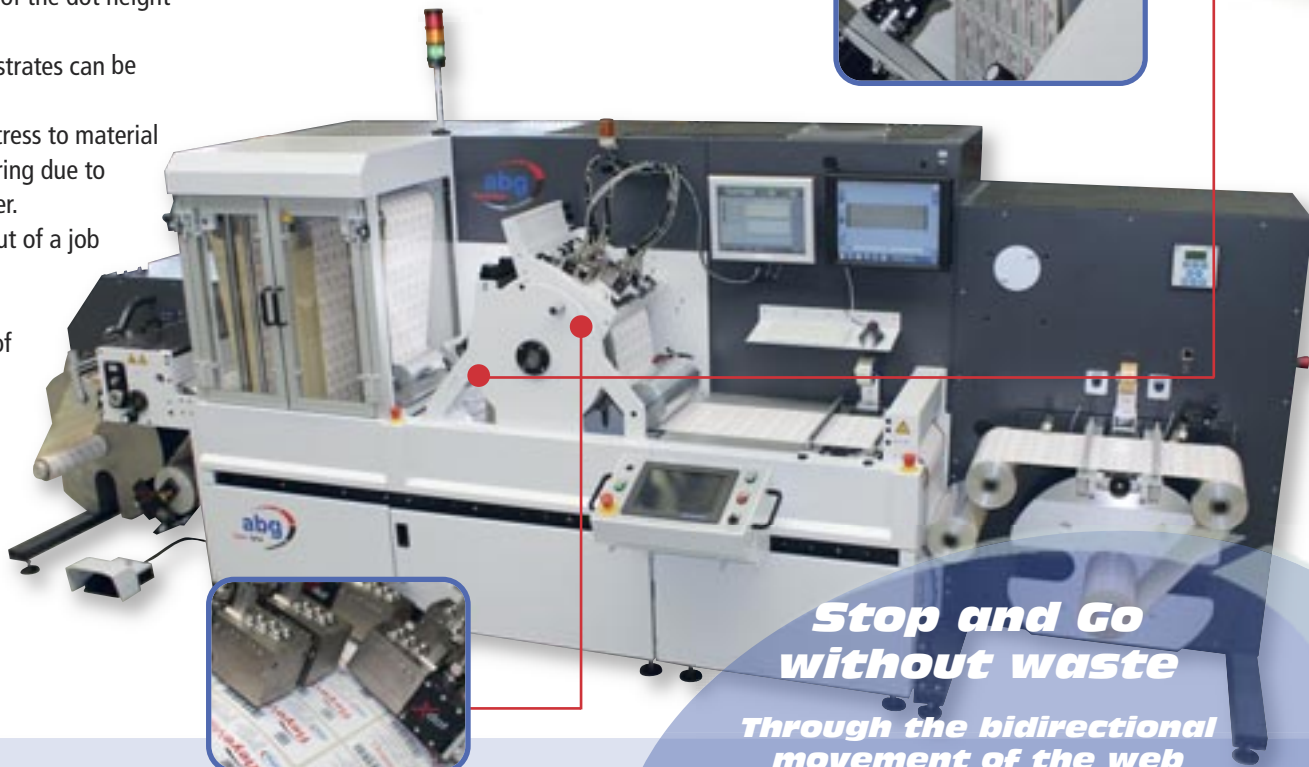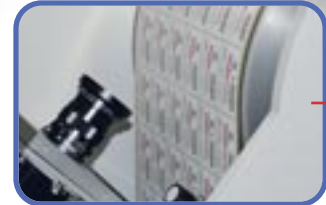# Digital braille

For production of braille text

How it works:
- set up in less than 5 min
- print speed up to 50 m / min
- printing without waste because of an integrated bidirectional web transport We guarantee a gap free print and consistent printing speed.
- swirl free print on a cylinder
- easy set up of the dot height and width
- various substrates can be printed
- Minimum stress to material from UV curing due to LED UV dryer.
- PDF-print out of a job report
- optional inspection of braille and print in one operation

The basic model is equipped with two braille heads for two text lines each head. If need it can be upgraded to eight heads. A temperature regulation of the varnish guarantees an optimal and continuous result. A very simple set up of the print system using unique software.

In addition new jobs and texts can be loaded from a data base or directly created by the operator. Normal texts will be automatically translated into a braille text.

fleyeVision Braille

Digital Braille print heads

Stop and Go without waste

Through the bidirectional movement of the web it will be dried at every stop and repositioned back in front of the print station – so that it can be started again without waste.

Full servo drive web transport system

Web transport and movement are realized through high end servo drives in combination with a special print drum. Special web guides at unwind and rewinder (option) as well as in front of the drum ensure a precise web guidance and accurate finished rolls, even with difficult materials.

Cost effective and reliable

The digital Braille is distinguished by:
- high productivity
- short set up time
- no printing screens or traditional artwork
- printing on booklets with no problems

Options
- additional Braille print head (up to eight lanes)
- web guide in front of the print drum
- LED UV drying instead of conventional drying
- fleyeVision Braille inspection
- fleyeVision print inspection
- dynamic memory system (printing, slitting, inspection in one cycle)
- slitting unit (rotary knives, razor blades or crush knives)

Our print and converting machines deliver finished rolls printed without any defect.

Digitale Print

For clinic studies and safety labels

Digital inkjet print and converting machines with integrated Drop on Demand system.

A fully integrated solution with camera system, number and data base inspection - security on highest level.

The digital print fulfils the growing requests for labelling applications with variable data – from the basic inventory inspection and the falsification protection up to advertising games, tickets, tags, plastic cards and mail materials and creating complete printed products.

Big reverse rollers

Big reverse rollers, drum and a special drive systems allow the printing of booklets without problems.

Implementation different inkjet systems possible

vision system

LED UV dryer

Short web path and excellent web control.

print area

the print drum ensures a perfect material handling as well as compact printing and drying.

The sequence: specially set up for the print and inspection process

The following process will occur every time the machine is stopped.

- current printed label will be finished
- the printed label will be moved forward through the UV dryer
- machine will be stopped
- label will be positioned back in front of the print station
- at the next start the print continues with the first unprinted label
- thereby no misprints at start / stop

Technical features

- web width up to 330 mm (430 mm optional)
- web speed up to 80 m/min (depending on the printing system)
- roll diameter at unwinder and rewinder: 750 mm
- web guide (controlling the unwinder and in front of the print drum)
- servo driven system, newest computers / PLC based control technique

Omega SRI

The new generation of the label converting

Highlights

- latest servo drive system and newest computer / PLC based control technique
- highest productivity at a converting speed up to 350 m / min
- slitting unit »Easy Adjust«
- ergonomic design and efficient handling
- operating in vertical or horizontal position
- fully integrated fleyeVision camera system and operating one screen
- Workflow for waste handling
- adjustable web clamps
- arrangable splice table behind the unwinder for use with a strobe light
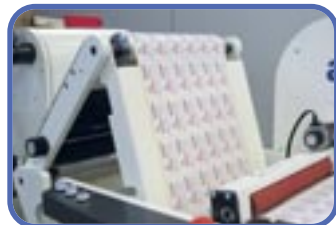- swivelling waste rewinder

abg

Start in a new age of the label converting with the new Omega SRI

Highlights

»easy adjust«

Easy adjust slitting system- Top and bottom knife shafts pull out independently to allow easy and quick setting. A sample of the web is clamped to a reference point for accurate setting whilst the knife shafts are in the out position. A digital vernier setting device is available as an option.

Adjustable splice table

The splice table can be raised to a vertical position to give a perfect inspection area when using a strobe.

Integrated camera inspection

The fully integrated camera system is combined with an additional nip roller to be able to efficiently remove waste material.

Latest technology

Latest control and servo systems ensure perfect web handling.

Ergonomic design

The ergonomic design of the SRI means that all operating controls are comfortably positioned for the operator.

User-friendly

Choice of operator position -the SRI can be supplied for operation either standing or sitting (vertical or horizontal web direction).

Touchscreen

An intuitive touchscreen controls both the machine and vision system (when fitted).

Adjustable web clamp

Variable position web clamp enables the clamps to be in the perfect position for long or short labels.

1 »Web Advance«

2 Dual rewind

Rewinding onto two mandrels with seperate servo drives

3 Rotary die with waste rewinder

Intuitive operating per touch screen for machine and vision system with only one single monitor.

4 Web guide

Web guide and unwind (positioning of the unwinding roll)

Advantage through innovation

Options

- Web advance for accurate placement of the slit lanes onto the cores.
- Missing label detection
- Flag and splice detection
- FleyeVision camera inspection, full integrated 100% inspection
- FleyeVision entry level, flag, splice, missing label-inspection and strobe, all in one
- Waste web removal by nip roller.
- Waste rewinder, working in conjunction with waste nip roller
- Crush knife slitting
- Razor blade slitting
- Vernier knife setting device
- Motorised roll lift
- Second web guide (positioning of the unwinding roll)
- Second web guide (prior to camera inspection)
- Count sensor for clear on clear labels
- Strobe
- Rotary die with servo drives including waste matrix rewinder
- Reregister option for rotary die

Technical features of the Omega SRI

- Available web width 330 mm, 430 mm, 530 mm
- Completely servo drive
- Converting speed up to 350 m/min
- Latest SPS / PC based operating system
- Pneumatic expandable mandrels, for unwinder and rewinder
- Roll diameter at the unwinder up to 800 mm
- Roll diameter at the rewinder up to 500 mm (600 mm as an option)
- Easy removable nip roller with adjustable contact pressure
- Rotary knifes «easy adjust» including fully extensible bottom and top shaft: easy positioning of the knifes without breaking the web
- Including three bottom and top knives
- Efficient web tension control during highest acceleration at unwinder and rewinder site
- Electronic web guide including an ultra sonic sensor for paper and clear on clear material
- Programmable diameter stop on the unwind
- Inside and outside winding
- Sliding splice table and a movable web clamp for long labels
- Latest touch screen generation, easy handling
- Automatic stop of the complete roll at a diameter, a label count or a meter count
- Efficient message management
- Integrated, all automatic procedures for converting selectable
- Easy job file save and load
- Integrated remote support via Internet - Support at the highest level

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