

TECHNICAL FEATURES

1 – Technical features

Type	Laminastar 2	
Maxi web width.....	1370 mm	53.94 "
Maxi coating width.....	1350 mm	53.15 "
Maxi reels diameters		
Unwinders	1000 mm	40 "
Rewinder	1000 mm	40 "
Inner cores diameters		
Unwinder	152 mm	6 "
Rewinder	152 mm	6 "
Maxi reels weight		
Unwinder	1000 kg	2200 lb
Rewinder	1000 kg	2200 lb
Web tension range (unwinder)	30 N to 400 N	6,6 lb to 88 lb
Web tension range (rewinder)	40 N to 400 N	8,8 lb to 88 lb
Maxi speed	400 m/min	1300 FPM
Main electric power supply	3 x 480 V 60 Hz	
Auxiliary electrical power	1 x 230 V 60 Hz	
Remote control	24 V DC	
Necessary air pressure network	7 bars dry/no oil/2 m³/h 100 PSI dry/no oil/2m³/h	
Installed power	110 kW	
Wiring cable section	3 x 95 mm² + earth	
Noise level ¹	75 to 80 dB (A)	
Temperature	+ 10°C to 40°C	50°F to 104°F
Humidity (without condensate)	30 to 95 %	
Coating weight	0,7 to 4 g/m²	0,4 to 2,4 lb/ream

¹ This value was measured at the front of the machine, at distance of 1 (one) meter from the main control panel and was corrected for the background noise and reflections.

2 – Materials and adhesive

a) Material to handle

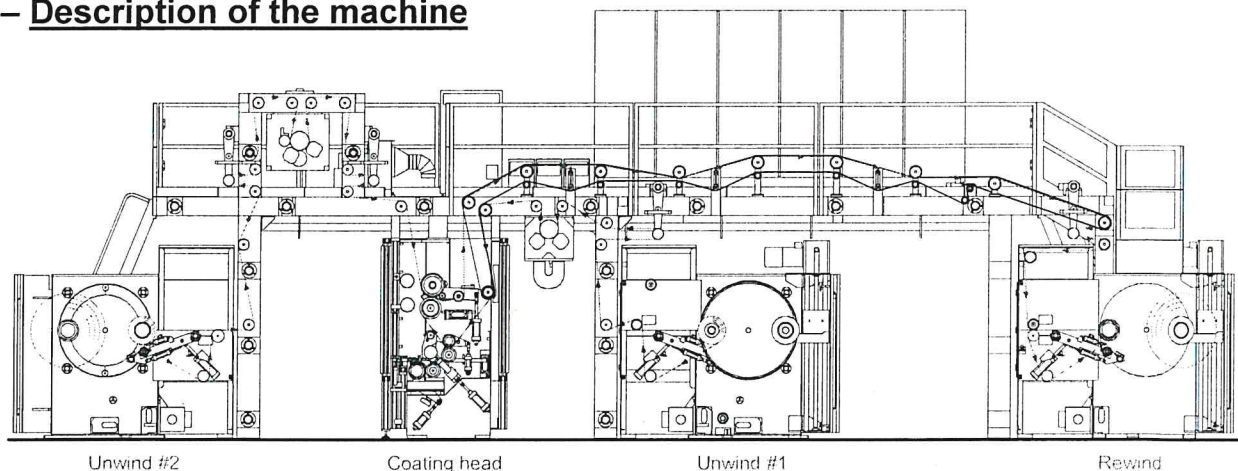
All the material used in the flexible packaging as for example :

- Cellophane : from 20 microns
- Polyethylene : from 25 – 125 microns
- Polyester : from 10 microns
- Oriented polypropylene : from 13 microns
- Nylon : from 12 microns
- Aluminium foils : from 7 microns
- Paper : from 30 to 120 g/m²

b) Adhesives to be used

- The **Laminastar 2** is adapted for the use of all solventless adhesives, mono or bi-components, cold or warm.
- Coating weight : 0,7 to 4 g/m² (0,4 to 2,4 lb/ream).
- Coating accuracy (for a coating weight of 1,5 g/m² - 0,9 lb/ream) :
 - ± 0,1 g/m² in the width (± 0,06 lb/ream).
 - ± 0,1 g/m² in the length (± 0,06 lb/ream).

3 – Description of the machine



a) Flying splice turret unwind #1

- Two steel frames, strongly braced, to be bolted to the ground and supporting the turret.
- One turret composed of two steel gears, braced, supporting the unwind shafts.
- Two pneumatic unwind shafts for core diameter 152 mm (6").

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- Two sets of self locking safety chucks mounted on the turret and supporting the unwind shafts.
- Drive/brake by two AC motors controlled by a dancing roller, driving the unwind shafts.
- One worm reduction unit to drive the turret for change of unwind shaft.
- Flying splice at full production speed.
- One splicing arm supporting the cutting blade operated by pneumatic cylinders.
- The splice sequence is controlled by the machine PLC.
- The splice is done in the one direction : bottom.
- Electric load elevator and safety light curtain.
- Control desk located on the unwind.

b) Flying splice turret unwind #2

- Two steel frames, strongly braced, to be bolted to the ground and supporting the turret.
- One turret composed of two steel gears, braced, supporting the unwind shafts.
- Two pneumatic unwind shafts for core diameter 152 mm (6").
- Two sets of self locking safety chucks mounted on the turret and supporting the unwind shafts.
- Drive/brake by two AC motors controlled by a dancing roller, driving the unwind shafts.
- One worm reduction unit to drive the turret for change of unwind shaft.
- Flying splice at full production speed.
- One splicing arm supporting the cutting blade operated by pneumatic cylinders.
- The splice sequence is controlled by the machine PLC.
- The splice is done in the one direction : bottom.
- Electric load elevator and safety light curtain.
- Control desk located on the unwind

c) Web guide aligner

- The turret unwind is mounted on ball rails and driven by an electric actuator.
- One automatic web guide aligner FIFE.
- One line sensor reading a printed line or the edge of the web.

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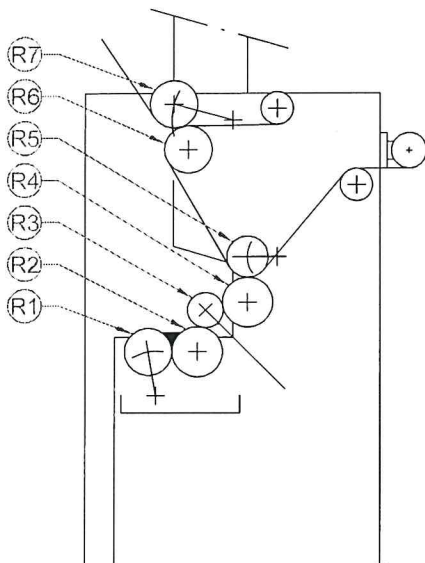
d) Installation of a CORONA treater (not included)

- Space provision for the installation of two Corona units (one on each unwinder).

e) Flying splice turret rewind

- Two steel frames, strongly braced, to be bolted to the ground and supporting the turret.
- One turret composed of two steel gears, braced, supporting the rewind shafts.
- Two pneumatic rewind shafts for core diameter 152 mm (6").
- Two sets of self locking safety chucks mounted on the turret and supporting the rewind shafts.
- Drive by two AC motors controlled by a dancing roller, driving the rewind shafts.
- One worm reduction unit to drive the turret for change of rewind shaft.
- Flying splice at full production speed.
- One splicing arm supporting the cutting blade operated by pneumatic cylinders.
- The splice sequence is controlled by the machine PLC.
- The splice is done in one direction : bottom.
- Electric load elevator and safety light curtain.
- Control desk located on the rewind.

f) Coating unit



• **Roll n°1 : Doctor roll**

- Rubber covered.
- Rotation by handwheel.
- Put in pressure against roll n°2 by air cylinders .

• **Roll n°2 : Pick-up roll**

- Chromium – plated steel.
- Rotation by a worm reduction unit with AC motor. Speed adjustable by the operator.
- Coated product is manually poured or fed by a pump with level control between the rolls n°1 and n°2.
- Traversing unit with pneumatic movement to keep the adhesive homogeneous between rolls n°1 and n°2.

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- Heated by water circulation with temperature stabiliser (not included).
- **Roll n°3 : Transfer roll**
 - Rubber covered.
 - Free running.
 - Put in pressure against rolls n°2 and n°4 air cylinders.
 - Sleeve device (optional).
 - The ends of the sleeve must be grinded according to the width of the web.
- **Roll n°4 : Coating roll**
 - Chromium – plated steel.
 - Rotation by an AC motor at machine speed.
 - Heated by water circulation with temperature stabiliser (not included).
- **Roll n°5 : Impression coating roll**
 - Rubber covered.
 - Put in pressure against roll n°5 by air cylinders .
- **Roll n°6 : Laminating roll**
 - Chromium – plated steel.
 - Rotation by an AC motor to get a slight extra tension on the web between roll n°4 and n°6.
 - Heated by water circulation with temperature stabiliser (not included).
- **Roll n°7 : Impression laminating roll**
 - Rubber covered.
 - Put in pressure against roll n°6 by air-cylinders .
- Overhead connecting structure over all the machine elements, with aluminium web path rolls.

g) **Equipment and options**

- Covers closing completely the coating unit, with an exhaust fan for the extraction of the adhesive vapours.
- Exhaust fan
 - One exhaust fan for the extraction of adhesive vapours (to be connected to outside).

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- Metal footbridge on the top supporting the electrical cabinet and the temperature controllers. **The access to the footbridge is forbidden while the machine is in operation and reserved to qualified personnel only !**
- Electrical cabinet with cooling unit, including :
 - Variable speed drives.
 - PLC.
 - Breakers.
 - Fuses.