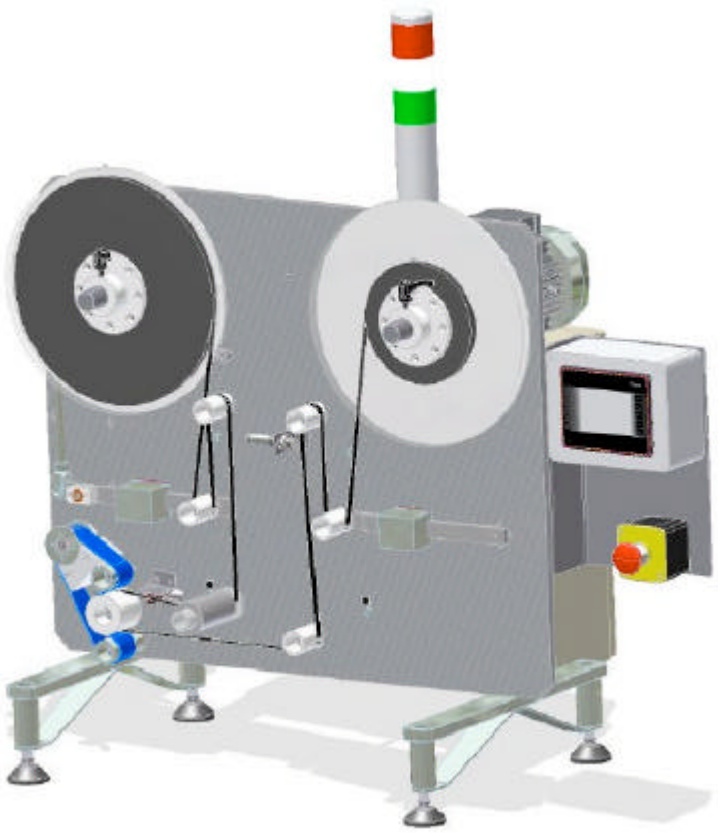
SCRATCH OFF REWINDER

Solaut produces scratch-off film saver devices, which are used for cards personalization.
The rewinder makes rewinding of scratch-off used reels for reuse in saver devices. The rewinding of the scratch is necessary when you have to reuse scratch with asymmetrical graphics: no rewinding, reuse of the scratch leads to impressions overturned.

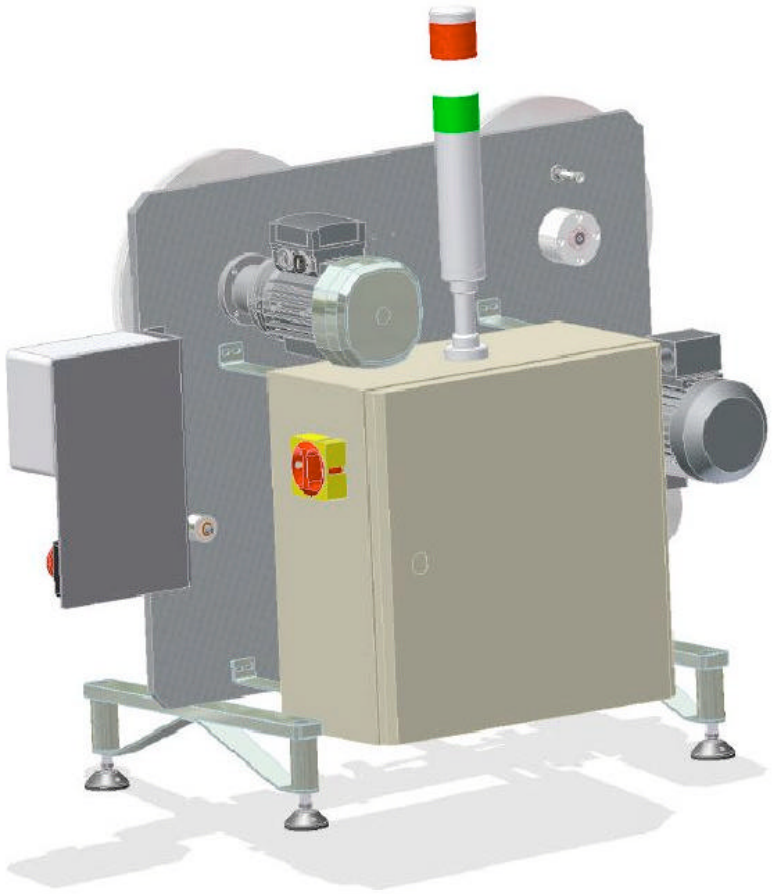


Rewinding scratch off reels device

Example of used scratch-off

For example, if the graphic has the word "WIND", unwinding the virgin film, the sequence of characters that go under the hot foil wheel will be W, I, N, D. The film used in CARDLINE hot foil module, is rewinded with the characters W first and last D. Unwinding the same reel on the recovery device, the characters will come out in the sequence D, N, I, W, and consequently under the hot foil wheel will be printed in reverse sequence, and thus reversed.
If the customer for whom the cards are produced, does not agree that the graphics are reversed, there are two possibilities: to reverse the orientation of the card inside the CARDLINE or rewind the reels.
Reverse the orientation of the card in CartLine, involves changing the setup of the printer Alfa, cameras and wheel position hotfoil. This adjustment results in a waste of time not negligible.

To recover the correct orientation, you can use the rewinder. This device, rewinding the film, recover the initial orientation of the graphics.



Rear view the rewinder

The other function of this device is to check the status the used scratch off reels before being used in the recovery devices. Thanks to a series of sensors, it is possible measure the number of restarts on the tape and their position. You can also check the pitch of impressions on the used tape to ensure compatibility with the CARDLINE that will use the reel.
Acquired data can be printed, with an optional thermal printer with cutter, to be attached to the reel. Checking the state of the reel, allows to reduce discards in the production of card with the recovery device.

STRUCTURE OF THE MACHINE

The device has a reel unwinding part, identical to the scratch recovery device of our production; the part of rewinding the film is identical to the corresponding group of the hot foil module CARDLINE Atlantic Zeiser.

The system consists of the following essential elements:

1) Reel holder with brake for a smooth progression of the film.
2) Feeder of the film to ensure an unwinding at a constant speed.
3) Rewinding group.
4) Operator pannel
5) Electrical panel with PLC
6) Optional: thermal printer to print film status reports.

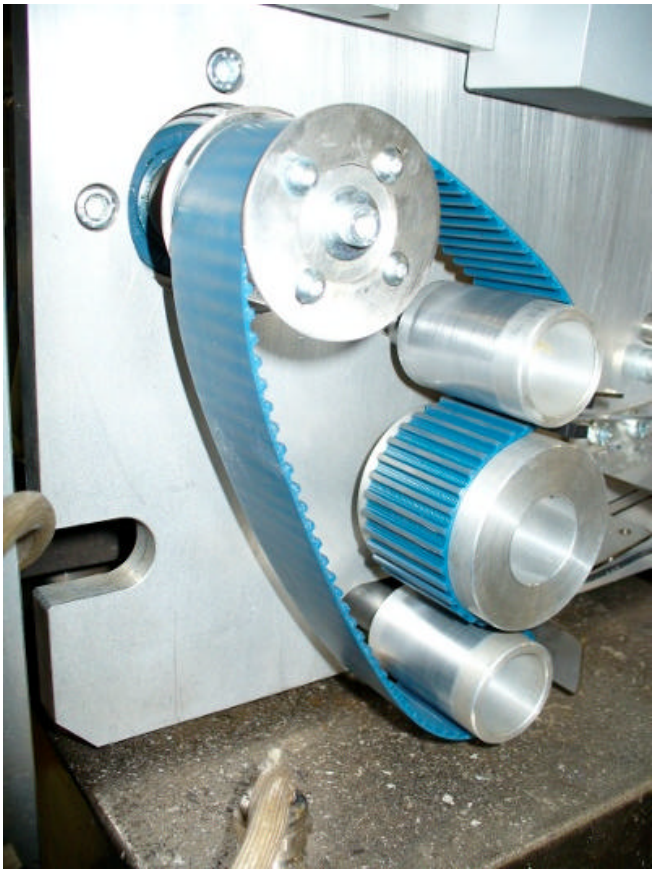
1. Reel holder

Holds the reel to be unwind, keeping tension of the film constant with an adjustable brake.

2. Feeder

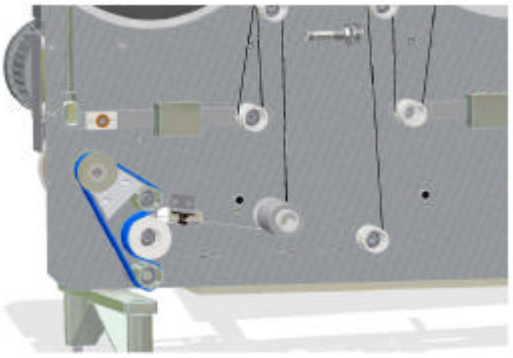
The feed assembly is constituted by a timing belt which wraps the film around an idler wheel. The belt is driven by a three-phase asynchronous motor controlled by an inverter. The unwinding speed is kept constant at the value set by the operator panel.
The machine can unwind the film at speeds from 0.24 to 1.2m / s equal to 10,000 to 50,000 cards / hour.

The drining motor is a three-phase 90W induction motor driven by inverter. An incremental encoder reads the speed of the scratch.
A photoelectric sensor, in combination with the encoder, reads the position of the impressions on the film. The data are collected and processed; at the end of rewinding, data can be viewed, saved and printed.



Film feeding group

Operator panel



Film feeding group

3. Rewinding group

This group is similar to the same group on the hot foil CARDLINE module.

A motor rotates the reel holder, the force of winding is adjustable by means of a tensioning arm with counterweight. The force of winding is kept constant at the varying of the diameter of the winding reel.

4. Operator panel

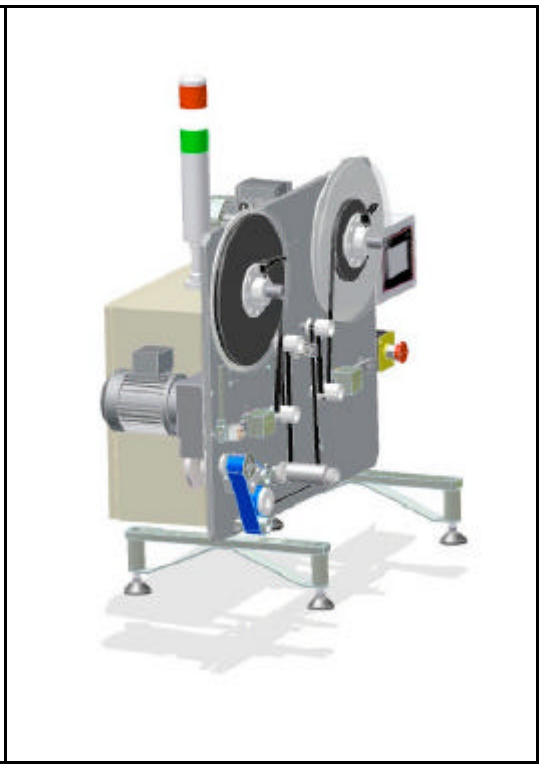
The 3.5" touch screen operator panel allows you to control the machine, adjust the winding speed and display reel data.

5. Electrical panel

The electrical panel contains an Omron plc and motor control inverters. The panel is fixed to the machine, also contains the electromechanical and power supplies.

6. Printer

To enable easy management the reels, it is possible print the data acquired to be able to attach to the reels. The printer has a cutter. The printer is an optional.



TECHNICAL SPECIFICATIONS	
Power supply	230V – 50/60 Hz
Power consumption	0,4 Kw
Working temperature	Da 5° a 40°
Pneumatic supply	5 bar
Scratch width	Da 8 a 30 mm
Max speed	50.000 card / hour
Min speed	10.000 card / hour
Reel max diameter	300mm

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