



Specialist of Flexible material converting
Machines

THE PROLAM RANGE

The choice of excellence



PROLAM 1600 : LAMINATING LINE AND CONVERTING SOLUTION

Versatile machine configured for the realization of several processes such as **unwinding**, **laminating**, **cutting** and **rewinding** on materials form sheets or rolls.

The machines are designed in **modular blocks**.

The **servo motorization** ensures perfect process control and repeatability.

The advanced management of the production recipes allows a **great agility** to change the job configuration in few seconds.

The working area is protected by 4 sets of **light curtains** managed by a **PLC safety controller**.

Work ergonomics are maintained with an excellent process visibility.



**MACHINE COMPLIANT
TO CE STANDARDS**

15" TOUCH SCREEN DISPLAY FOR THE COMPLETE CONTROL OF THE PROCESS WITH GRAPHIC INTERFACE REPRESENTING THE PROCESS:

Working speed ◀

Control of the rewinders / unwinders ◀

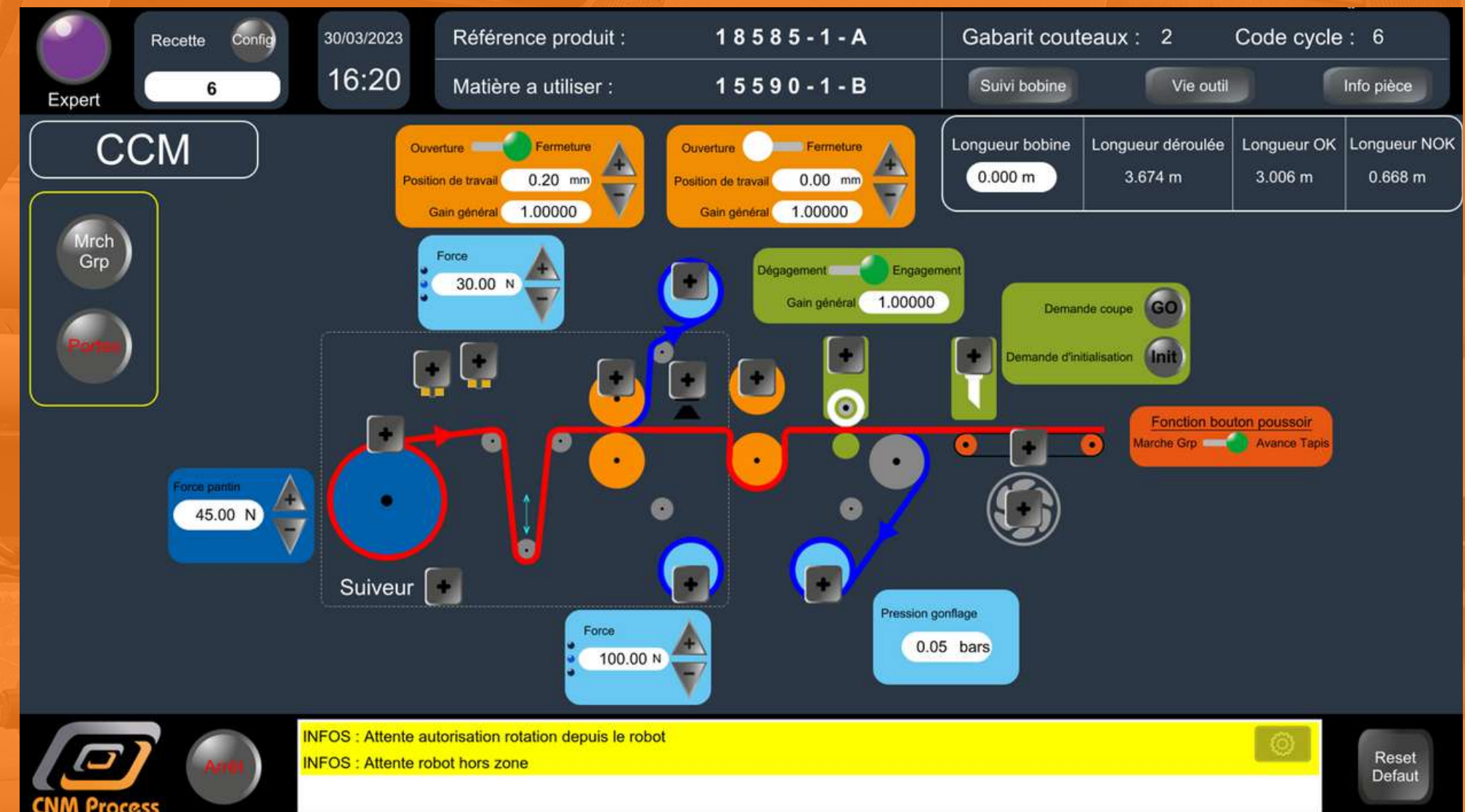
Overspeed boost for longitudinal blades ◀

Length management ◀

Control of the height of the calander ◀

Control of the height of the blades ◀

Remote assistance ◀



OUR MODULES

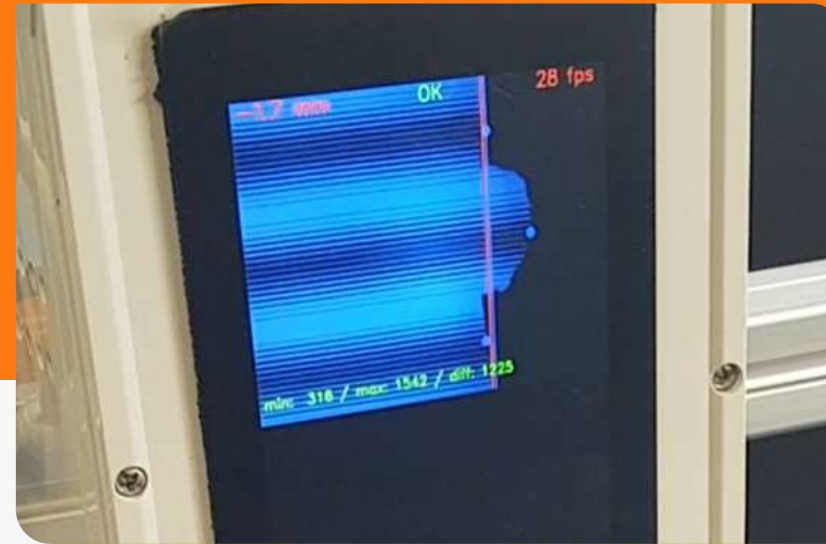


UNWINDING MODULE

- 2 Swivels safety chuck with 30x30mm square
- 1 Pneumatic expansion shaft
- 1 Servo geared motor directly mount on shaft
- Torque mode with tension control by diameter calculation
- Dancing roller mode with tension control by roll

OPTIONS :

- Counter meters (1 line encoder with detour roll)
- Loop control 0 tension (elastic materials)



VISION SYSTEM

- Automatic material edge alignment
- Ideal solution for materials with irregular edges (textile, composite, foam...)
- Reference adjustment during the process
- Colors labels detection
- Control of material defects (linear camera)



JUNCTION TABLE

- 2 Pneumatic pressing bar
- 1 Button box
- 1 Floor sensor for "free hand" use
- Groove for straight cut

OUR MODULES



CONVEYOR BELT

- Servo motorization with synchronization at the calander
- Retractable system for ergonomic access to adhesive loading
- Laser sensor for automatic gap control between sheets
- A loop can be control between the conveyor and the calander for elastic materials

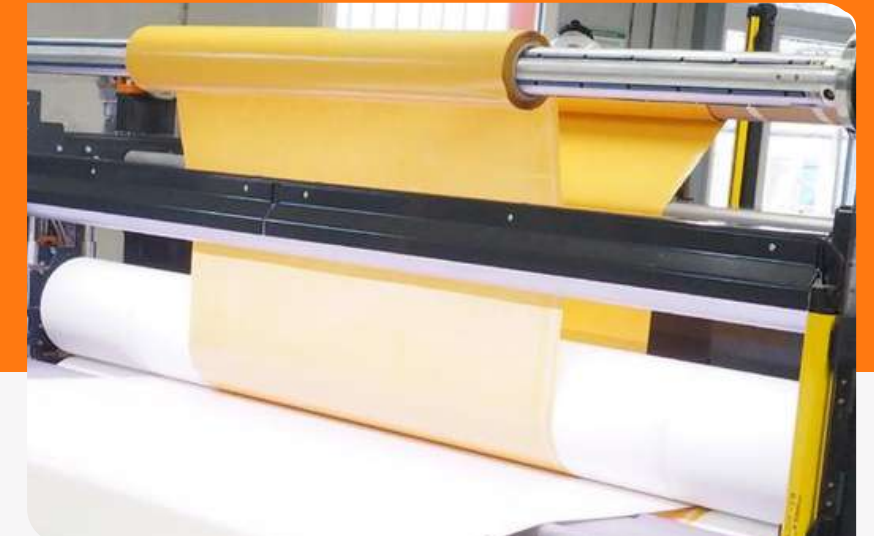


CALENDER UNIT

- Ø230mm silicone coated heavy steel rollers
- Direct motorization on the rolls
- Electronic synchronization of the rollers
- 2 Servomotors for the management of the mechanical stops (independent right / left)
- Opening / closing of the upper roller by pneumatic cylinder 100mm stroke

OPTION :

- Heating elements with temperature control (max 120°) in closed loop (1 element = 1 sensor)



UNWINDERS - REWINDERS IN TENSION CONTROL

- Swivel safety chuck
- Pneumatic expanding shaft
- Geared motor directly on a chuck
- Tension control by calculation of diameter

OPTION :

- Individual tape dispenser

OUR MODULES



LONGITUDINAL CUT

- Splined shaft with direct servo drive
- Counter roll with direct servo motorization
- Slide for the positioning of the knives holders
- Nylon rings Ø80mm used as cutting pad
- Opening / closing of the knives by pneumatic cylinders with 100mm stroke to release the knives.
- Knives holders with grooved rings for transmission
 - knives Ø180x1mm, cutting thickness 45mm
 - knives Ø120x1mm, cutting thickness 20mm
 - minimum cutting width 30mm
- 2 servomotors for the management of the stops
- High accuracy in blade height positioning



CROSS CUT UNIT

- 1 Servo geared motor
- Blade holder driven by pulley / belt
- Linear slide
- Carbide blade with diamond tip for cutting in both directions (cutting from below)
- Pneumatic presser with locking plates on both sides of the blade

OUR MODULES



OUTPUT RE-WINDERS WITH ARTICULATION

- Expandable steel swivel shafts
- Shafts are equipped with PEHD strips
- Winding in friction mode (thick mandrels)
- Winding in torque mode
- Sliding safety chuck with motorization
- Proportional valves for friction control
- Button box for automatic inflation and selection of the winding axis



TABLE FOR PLATES

- Mechanically welded structure 900x2000mm
- 4 swivel castors Ø125mm with brake
- White melamine plate 1000x23000mm
- Quick locking by clamp



OUTPUT CONVEYOR BELT

- Removable conveyor on 4 swivel castor wheels
- Fixation with clamps on the machine frame
- Quick connection by plug-in connector type "Harting"
- PVC belt with guide ring
- Gap and batch management between cutting parts

EXISTING MACHINES



STRETCH FILM UNWINDER

- Control button on the handle for the rotation of the shaft
- The slide allow easy movement of the stretch film
- Management of the film tension by mechanical brake



CONTROL PEDAL

- Mobile command for machine control
- Start/stop button
- Emergency stop button
- Foot pedal to ease the loading of material



ELECTRICAL BOX

- 15" touch screen display on swivel console
- Digital axis controller Lenze C520
- Lenze I700 Drives
- Lenze motorization



IDLE ROLLERS

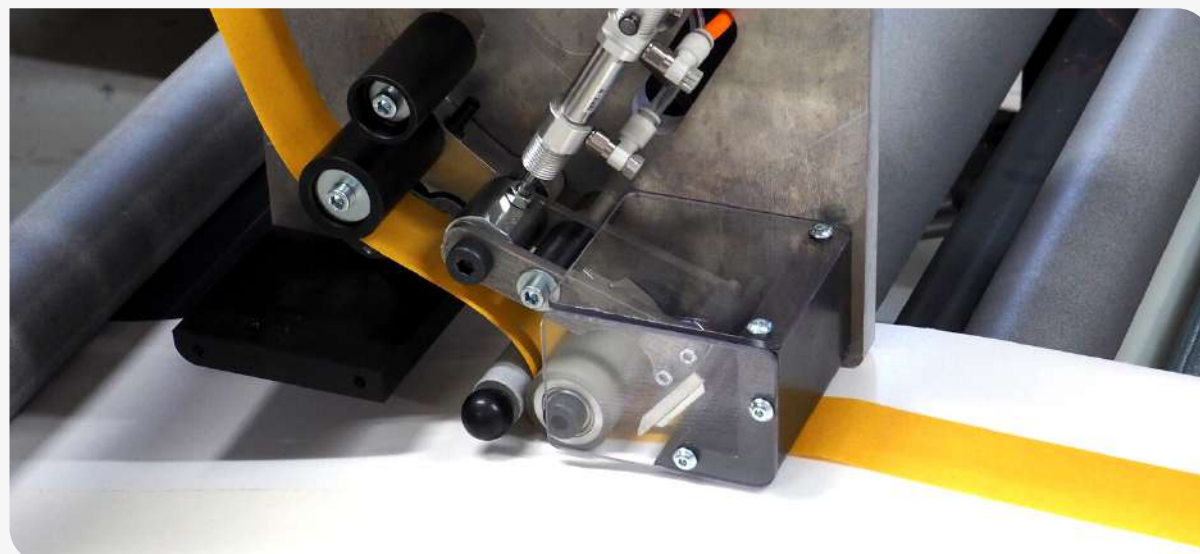
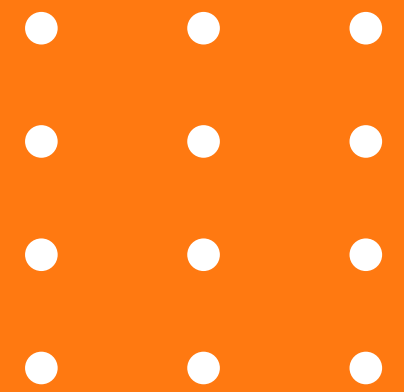
- Control material passage
- Web stabilisation
- Can be fix in many different position

OPTION :

- Spreader roller
- Ionization wind tunnel

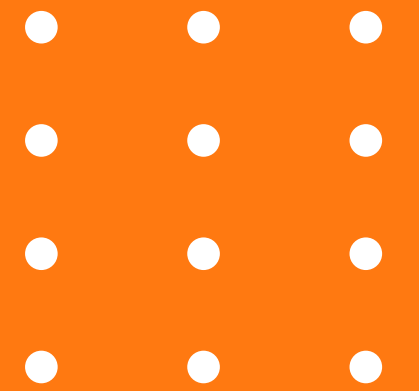
EXISTING MACHINES

Slitter Laminating Machine



EXISTING MACHINES

Cross Cutting Machine



EXISTING MACHINES

Slitter Calender Machine





CNM Process is the **know-how of 20 passionate** people dedicated to your satisfaction.

A **mastered process** from the technical study to the commissioning on customer site.

Machines designed, developed and **manufactured in France.**



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