

# AV

WRAPPING MACHINES FOR PALLETISED LOADS

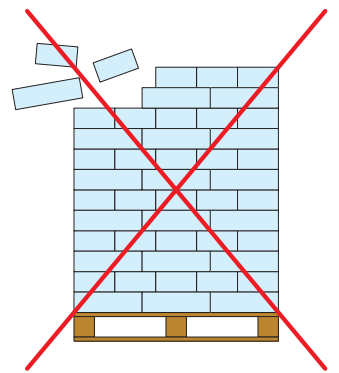


**PAGLIERANI**

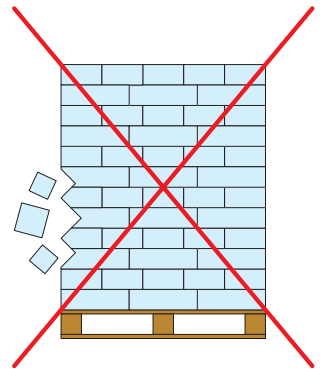
mechatronics at its best.

# Wrapping the palletised load guarantees:

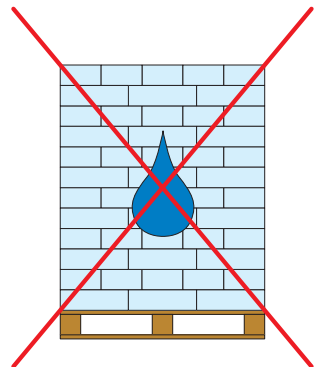
Stability of the palletised load during transport and warehousing.



Protection of the palletised load against damage.



Protection against the elements by the application of a top cover (optional).



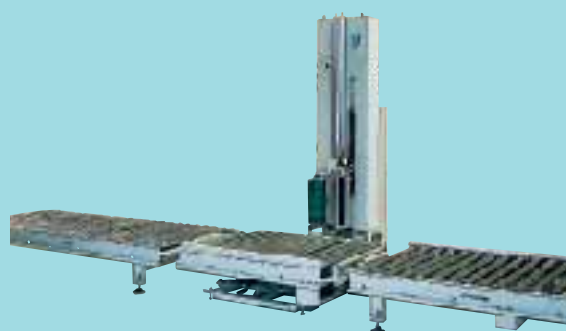
# AV 300

SEMI-AUTOMATIC TURNTABLE WRAPPER, SIMPLE AND ECONOMIC, FOR LOW SPEEDS.



# AV 350

SEMI-AUTOMATIC TURNTABLE WRAPPER, WITH IN-LINE CONFIGURATION, FOR MEDIUM SPEEDS.



# AV 500

FULLY AUTOMATIC TURNTABLE WRAPPER FOR MEDIUM SPEEDS.



# AV 600

FULLY AUTOMATIC WRAPPER WITH ROTATING ARM FOR HIGH SPEEDS.



# AV 300

**TURNTABLE  
WRAPPER.**

**ECONOMIC**

**LOW SPEEDS**

The AV 300 semi-automatic wrapper is a simple machine with advanced technical features ensuring high levels of performance.

## **MANUAL OPERATIONS:**

- positioning of full pallet to be wrapped
- application of leading edge of film
- cycle start (start button)
- film cutting at end of wrapping operation
- pickup of wrapped pallet.

## **GENERAL FEATURES:**

- sturdy steel frame
- fork truck pickup points for quick and easy installation of the machine in the wrapping area
- turntable sized to ensure maximum speed without effecting the stability of the palletised load.  
The speed is controlled by a frequency variator (inverter)
- reel holder designed for simple and fast replacement
- film tension regulated by hydraulic clutch for precise and constant control
- vertical movement of reel with variable speed (by inverter) to adjust wrapping “spiral” (% of overlap)
- PLC controlled system
- integral protection conforms to international accident prevention norms.



With the AV 350, the increase of the wrapping automation with a small investment is obtained. The AV 350 can be positioned in line at the outfeed of an automatic palletiser, and is suitable for low and medium speeds.

#### **MANUAL OPERATIONS:**

- application of leading edge of film
- cycle start (start button)
- film cutting at end of wrapping operation.

#### **GENERAL FEATURES:**

- sturdy steel frame
- turntable complete with powered rollers for positioning and automatic discharge of full pallets, sized for maximum speed without effecting the stability of the palletised load.  
The speed is controlled by a frequency variator (inverter)
- reel holder designed for simple and fast replacement
- film tension regulated by hydraulic clutch for precise and constant control
- vertical movement of reel with variable speed (by inverter) to adjust wrapping “spiral” (% of overlap)
- PLC controlled system
- perimeter and integral safety fences conforms to international accident prevention norms.

# AV 350

**TURNTABLE  
WRAPPER.**

**MEDIUM RATE**

**SEMI-AUTOMATIC**

**IN LINE**







Perimeter guarding and integral protection conforms to international accident prevention norms.

# AV 500

**TURNTABLE  
WRAPPER.**

**MEDIUM RATE**

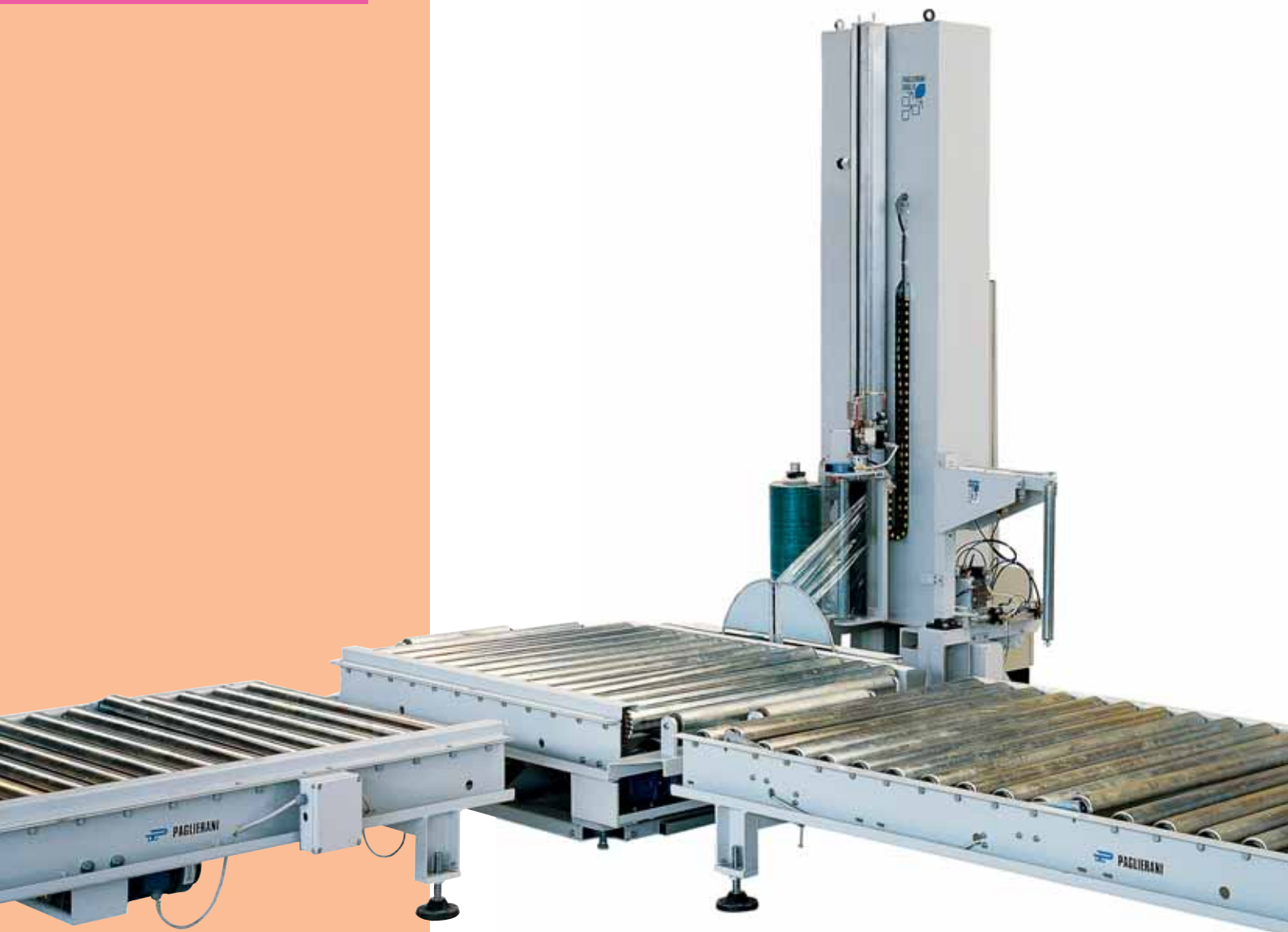
**COMPLETELY  
AUTOMATIC**

**IN-LINE OR 90°  
DISCHARGE OF  
WRAPPED PALLET**

The AV 500 assures total automation of the wrapping process at medium production rates. All functions are automatic and no manual intervention is required. Alarms provided:

- film break
- film end

Suitable for installation at the outfeed of an automatic palletiser. With the unique rotating base, the wrapped pallet may be discharged in-line or at 90°.



## GENERAL FEATURES:

- Sturdy steel frame.
- Turntable complete with powered rollers for positioning and automatic discharge of full pallets, sized for maximum speed without effecting the stability of the palletised load. The speed is controlled by a frequency variator (inverter).

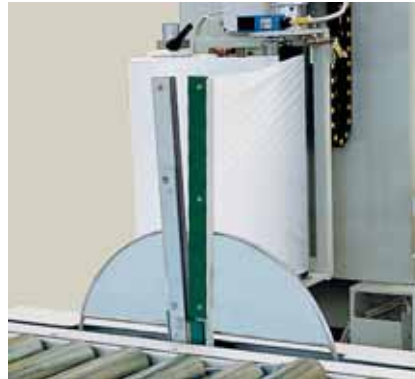


- Reel holder designed for simple and fast replacement.
- Film tension regulated by hydraulic clutch for precise and constant control.
- Vertical movement of reel with variable speed (by inverter) to adjust wrapping “spiral” (% of overlap).

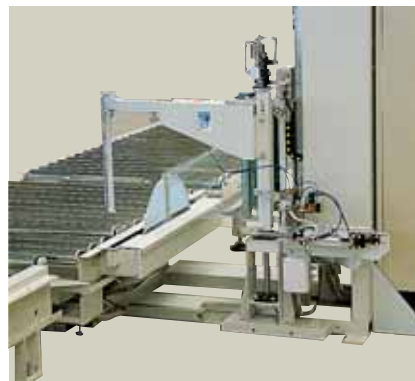


- Photocell for automatic sensing of pallet height for “self-adjustment” of different pallet heights.

- Gripper to hold and cut film for automatic application of edge.



- Pneumatic arm for perfect adherence of following edge and to prevent “fishtail” effect.

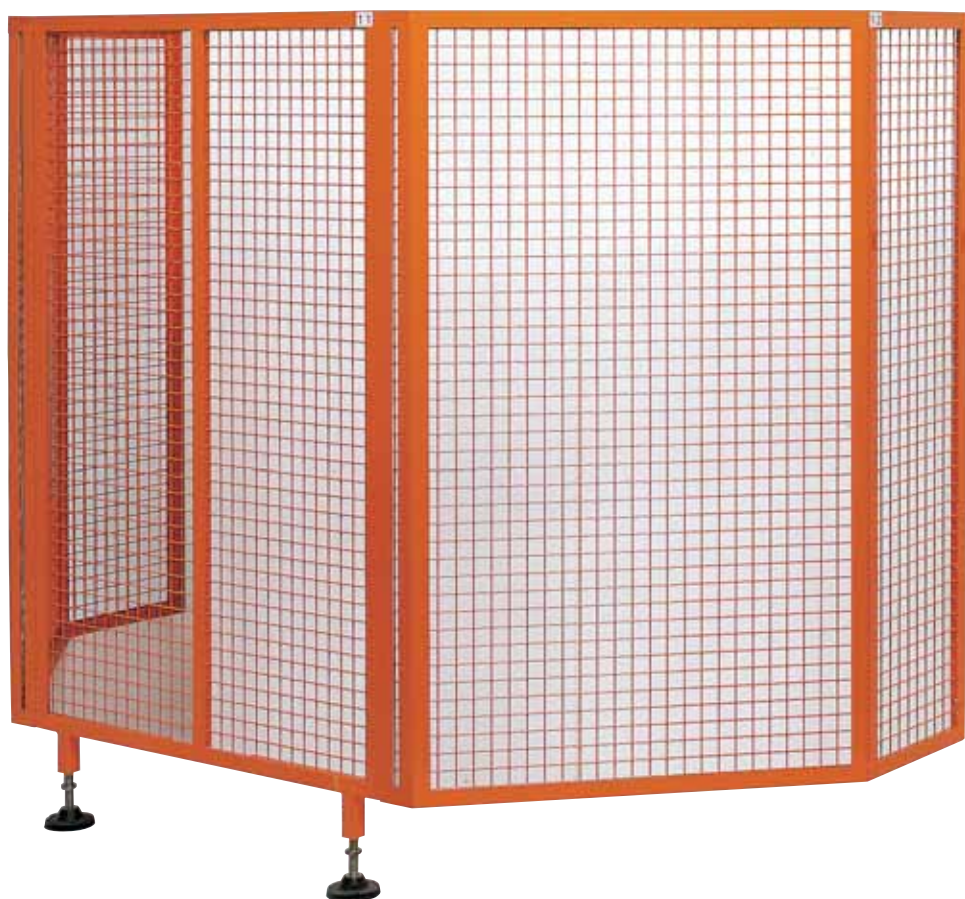


- Programmable controller (PLC) for machine control and integration with upstream equipment (palletiser).





Perimeter guarding  
and integral protection  
conforms to international  
accident prevention norms.



# AV 600

**ROTATING  
ARM WRAPPER.**

**MONOLITHIC STRUCTURE**

**REDUCED DIMENSIONS**

**HIGH PERFORMANCE**

**COMPLETELY  
AUTOMATIC**

The AV 600 automatic wrapper is a simple, robust machine with many technical advantages for increased levels of performance. Its monolithic structure reduces assembly costs (the machine is shipped completely assembled) as well as overall dimensions. The control panel and all electrical and pneumatic cables are housed in the structure. All functions are automatic and no manual intervention is required.

Alarms provided:

- film break
- film end

Suitable for positioning in line at the outfeed of an automatic palletiser.



## GENERAL FEATURES:

- Sturdy steel frame (monolithic structure).
- Rotating arm supporting the wrapping reel.  
For maximum performance, speed of rotation is controlled by a frequency variator for regulation of:
  - acceleration ramp (start)
  - deceleration ramp (end of cycle)
  - wrapping speed.



- Reel holder supported by rotating arm, designed for simple and fast replacement.



- Film tension regulated by hydraulic clutch for precise and constant control.
- Vertical movement of reel with variable speed (by inverter) to adjust wrapping “spiral” (% of overlap).
- Photocell for automatic sensing of pallet height for “self-adjustment” of different pallet heights.

- Gripper to hold and cut film for automatic application of edge.



- Motor-driven brush attached to pallet rollerway for perfect adherence of following edge and to prevent “fishtail” effect.



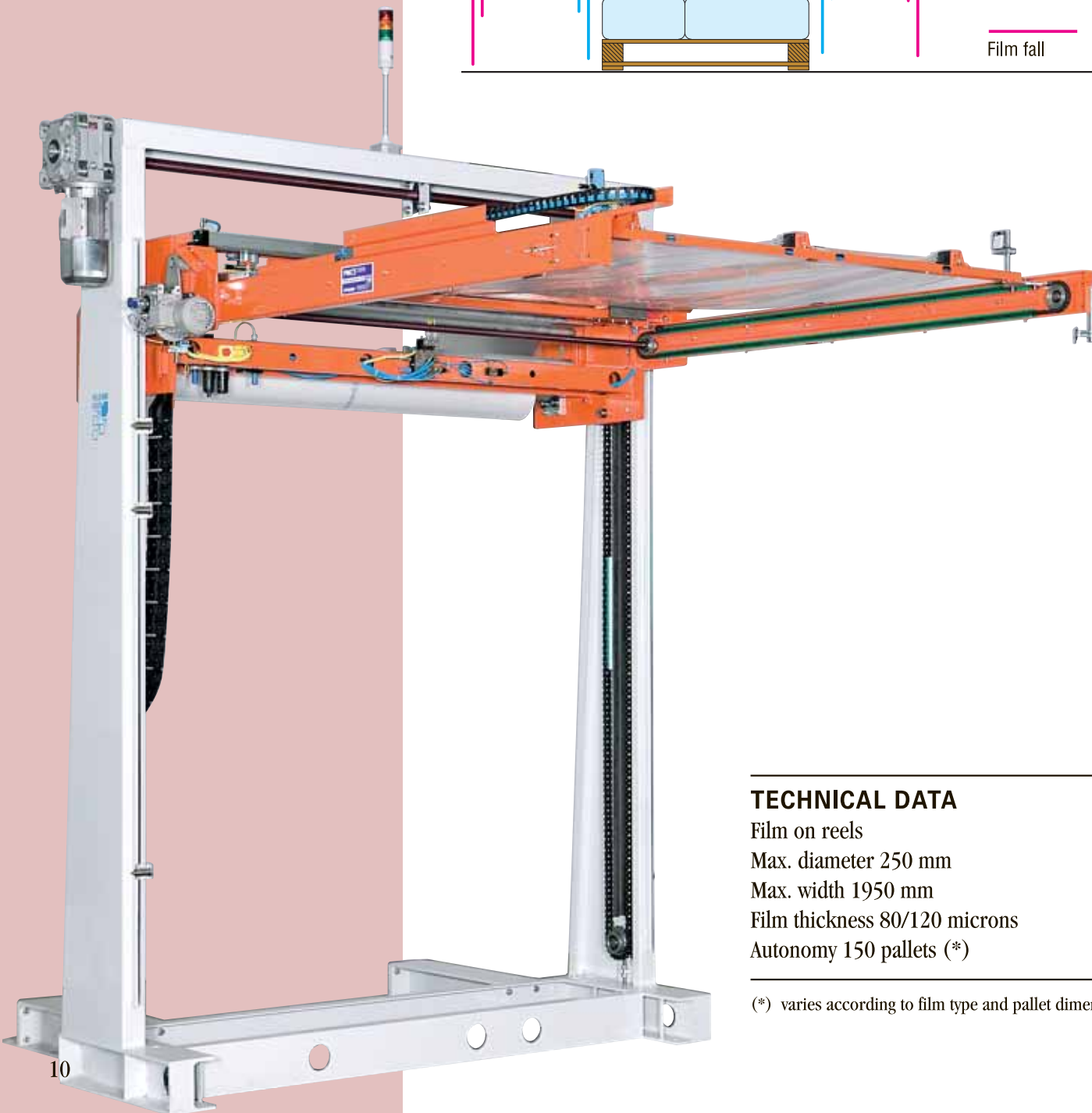
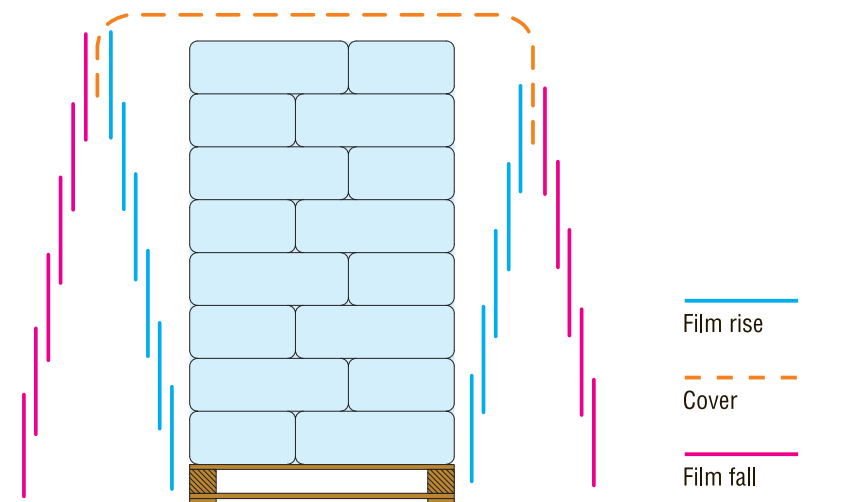
- Full PLC control providing integration with upstream equipment (palletiser).



# TOP 601

**AUTOMATIC  
COVERING UNIT.**

- A top cover is applied to the wrapped pallet for protection against the elements. The top of the pallet is protected with a cover. On the automatic models (AV 500 - AV 600), this operation is performed by the TOP 601 covering unit.



## TECHNICAL DATA

Film on reels

Max. diameter 250 mm

Max. width 1950 mm

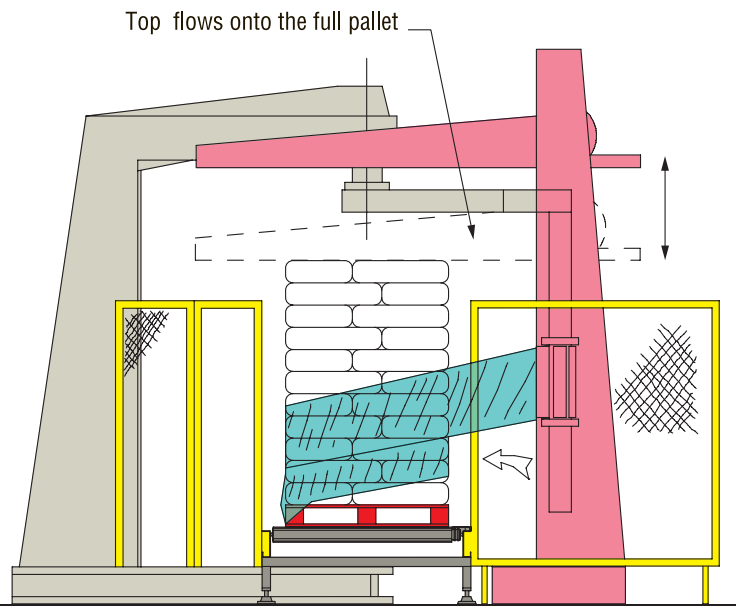
Film thickness 80/120 microns

Autonomy 150 pallets (\*)

(\*) varies according to film type and pallet dimensions.



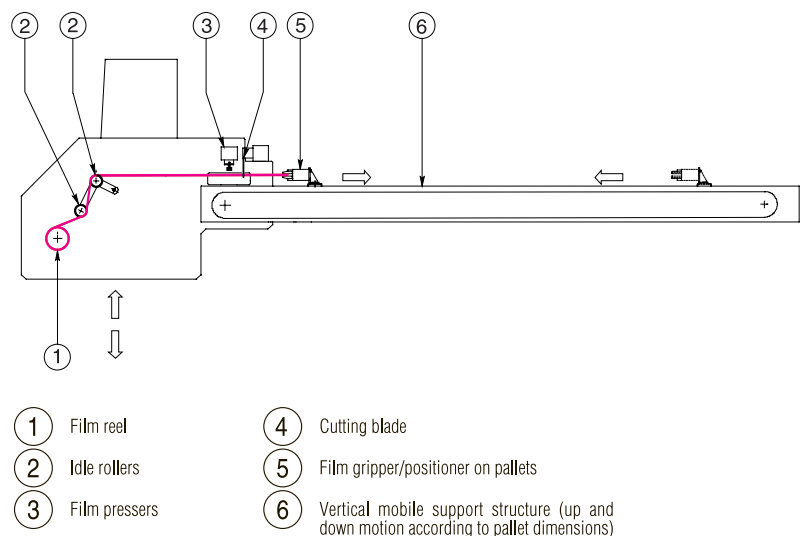
- The AV 500 and AV 600 wrapper may be linked to the TOP 601 covering unit at a later date. This feature makes it possible to minimise costs without preventing a future upgrade.
- The covering unit consists of a self-supporting frame positioned in front of the AV 500 - AV 600 wrapper.



- Reel holder unit. For quick and easy changeover, the reel holder is positioned approximately 800 mm from the floor (a natural working position which conforms to the height of the full pallet). Up and down motion is provided by a geared electric motor. The film is unwound through film transport pneumatic clamps. An end-of-reel alarm is also provided.



- Puller and covering unit grippers. The film (cover) is pulled transversely by a series of grippers that grip the edge of the film and place it over the full pallet.
- Cutting blade. The unwound film is cut by a pneumatically controlled lengthwise blade.
- Photocell for automatic sensing of pallet height for “self-adjustment” of different pallet heights.





# AV 300

- Ramp for easy positioning of pallet on turntable.

# AV 350

- “Mobile bridge” with ladder for easy access in case of manual application of waterproof top cover.
- Powered roller conveyor for pallet feed, complete with a photoelectric sensor to check presence of palletised load.

# AV 500

- Powered roller conveyor for pallet feed, complete with photoelectric sensor to check presence of palletised load.
- Accumulation roller conveyor for wrapped pallets (this may be with gravity rollers or motorised rollers, depending on plant requirements). The conveyor is complete with photoelectric sensor to check presence of palletised load, and upstream machine stop signal when full accumulation.

# AV 600

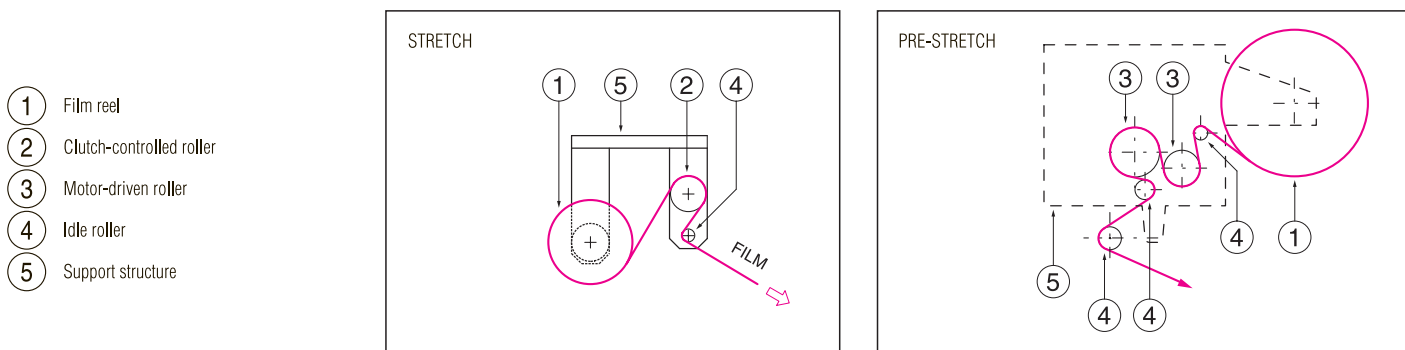
- Powered roller conveyor for pallet feed, complete with photoelectric sensor to check presence of palletised load.
- Accumulation roller conveyor for wrapped pallets (this may be with gravity rollers or motorised rollers, depending on plant requirements). The conveyor is complete with photoelectric sensor to check presence of palletised load, and upstream machine stop signal when full accumulation.

## OPTIONALS

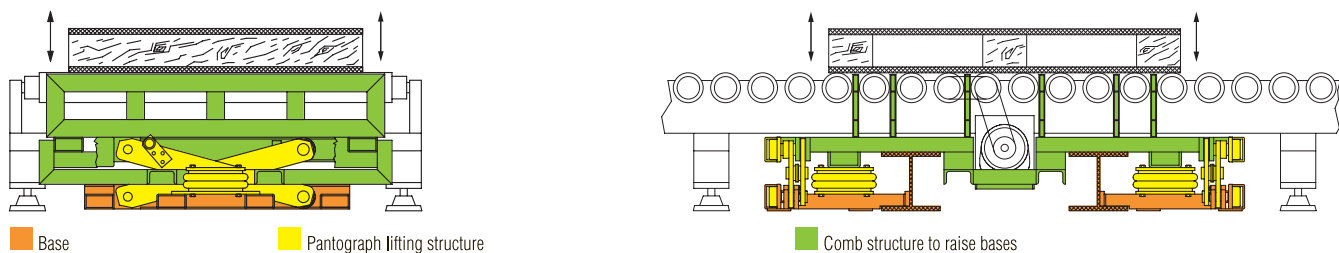
- Pre-stretching of film to 200% (\*) before application (this is particularly suitable in cases of light and fragile palletised loads).
- Top pressure element to prevent the pallet from separating during wrapping (this application is used with unstable loads).

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- Top pressure element to prevent the pallet from separating during wrapping (this application is used with unstable loads).
- Accumulation roller conveyor for wrapped pallets (this may be with gravity rollers or motorised rollers, depending on plant requirements). The conveyor is complete with a photoelectric sensor to check presence of palletised load, and upstream machine stop signal when full accumulation.

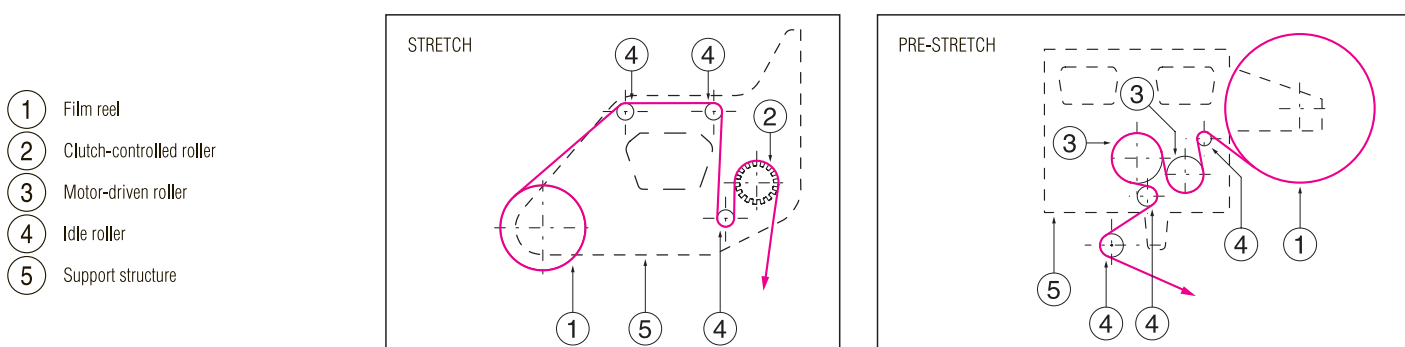
- Pre-stretching of film to 200% (\*) before application (this is particularly suitable in cases of light and fragile palletised loads).



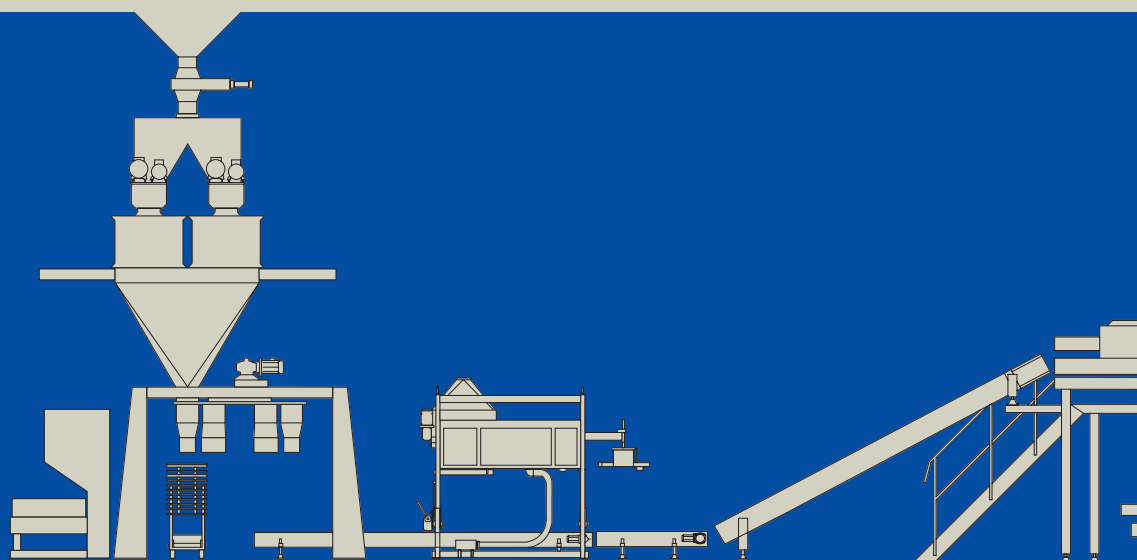
- Pneumatic device to lift full pallet for complete wrapping at base.



- Pre-stretching of film to 200% (\*) before application (this is particularly suitable in cases of light and fragile palletised loads, and allows for the use of maxi-reels to increase machine autonomy).



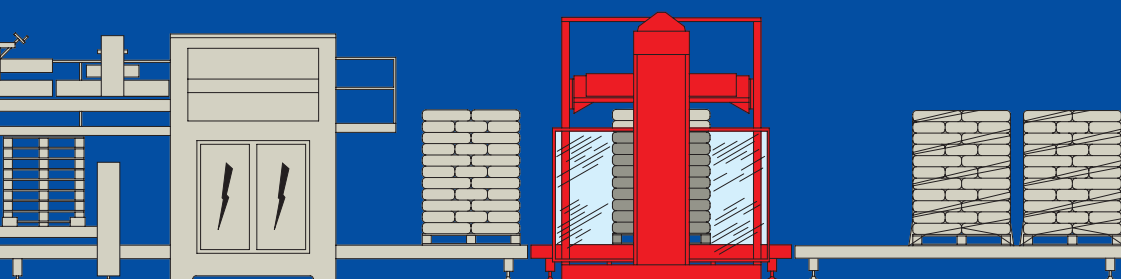
| TECHNICAL DATA | MAX. PALLETISABLE LOAD              | TURNTABLE SPEED | ARM ROTATION SPEED                     |
|----------------|-------------------------------------|-----------------|--|
| <b>AV 300</b>  | 1 x 1.2 x 2 (h) meters<br>2000 kg   | 7 rpm           | –                                      |
| <b>AV 350</b>  | 1.2 x 1.3 x 2 (h) meters<br>2000 kg | 11 rpm (max)    | –                                      |
| <b>AV 500</b>  | 1.2 x 1.3 x 2 (h) meters<br>2000 kg | 11 rpm (max)    | –                                      |
| <b>AV 600</b>  | 1.4 x 1.4 x 2 (h) meters            | –               | Adjustable<br>Min 18 rpm<br>Max 25 rpm |



| FILM ON REELS  | SELECTABLE WRAPPING CYCLES   | LEVEL OF ROLLER CONVEYOR       |
|--|--|--------------------------------|
| Max. diam. 300 mm<br>Max. ht. 500 mm<br>Film thickness 20/30 microns<br>Autonomy 70/80 pallets (*)   | Simple (up only)<br>Double (up and down)<br>Hermetic (up and down with pause for application of cover) | 80 mm                          |
| Max. diam. 300 mm<br>Max. ht. 500 mm<br>Film thickness 20/30 microns<br>Autonomy 70/80 pallets (*)   | Double (up and down)<br>Hermetic (up and down with pause for application of cover)                     | 470 mm                         |
| Max. diam. 300 mm (Stretch)<br>Max. ht. 500 mm<br>Film thickness 20/30 microns<br>Autonomy 70/80 pallets (*)<br>Maxi-reel diam. 350 mm (Pre-stretch) for autonomy of 125 pallets (*) | Double (up and down)<br>Hermetic (up and down with pause for application of cover)                     | Variable from 470 mm to 550 mm |
| Max. diam. 250 mm (Stretch)<br>Max. ht. 500 mm<br>Film thickness 20/30 microns<br>Autonomy 70/80 pallets (*)<br>Maxi-reel diam. 350 mm (Pre-stretch) for autonomy of 125 pallets (*) | Double (up and down)<br>Hermetic (linked to TOP 601: up and down with pause for application of cover)  | Variable from 470 mm to 550 mm |

(\*) Varies according to film type and pallet dimensions.

**PAGLIERANI: A LINE COMPOSED OF STRONG POINTS.**





WEIGHING, PACKING FILLING, PALLETISING, &  
STRETCH WRAPPING SYSTEMS.

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