

# COMPANY CASE STUDY

Manipulator industrial ATIS :ergonomics in  
the movement of rolls



## The handling solution to transform efficiency and safety in your production cycle

This manipulator is specifically designed for your production, ensuring safe, efficient and ergonomic handling of reels wrapped in plastic film. Thanks to its gripper with grip on the external diameter, it adapts perfectly to the different work situations you describe, overcoming the current challenges related to manual handling.

### Preliminary Technical Specifications

- Maximum load: 80 kg
- Handleable roll diameter: 200-400 mm
- Length of reels: 900 – 2000 mm
- Range: 4200 mm
- Air pressure needed 7.5 bar
- Operator Interface: Intuitive and responsive controls positioned ergonomically on the manipulator handle.

### Grip system optimized

The heart of the system is a mechanical/pneumatic gripper custom-designed for a firm and secure grip on the outer diameter of the coils. The clamping force will be adjustable to adapt to different weights and dimensions, ensuring handling without deformation or damage.

Pneumatic activation for a reliable and fast secure hold.

- **Movements:** Fluid and precise thanks to the pneumatic system.
- **Commands:** On two heights to maximize operator ergonomics.
- **Safety:** Integrated safety devices to prevent accidental load drops and ensure operator safety.
- **Flexibility:** Unique gripping system for different coil diameters.

### Key benefits for your business

- **Ergonomics and Operator Safety:** Drastically reduced physical effort and risk of injury for operators, especially with large reels or at high heights. Goodbye fatigue!
- **Increased Productivity:** Optimize the handling times of the rolls, both from the drop platform and from the pallets. Your workflow will be faster and smoother.
- **Operational Versatility:** A single tool to manage two distinct work scenarios, maximizing return on investment.
- **Preservation of the Integrity of the Material:** The external grip is designed to be gentle, avoiding damage to the plastic film or fabric of the rolls.
- **Ease of Use:** The intuitive interface and ergonomic controls allow for quick learning by operators.

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## For a more efficient future

You are a hands-on company and the current work is managed manually?

This manipulator is not just a tool, but a **strategic investment** that will transform your day-to-day operations, improving safety, reducing effort and increasing overall efficiency.

We are at your complete disposal for a **free and no-obligation technical inspection**. This will be an opportunity to evaluate the spaces in detail, confirm the exact dimensions of your reels and containers, and define together the most suitable configuration of the manipulator for your specific production reality.

## Versatility

**Different applications:** Suitable for various industrial applications, tailor-made around your product and adapted to the work cycle.



### Specific Operational Scenarios:

#### Scenario A: Movement from Drop Platform to Container on Ground

The coils fall by gravity onto a **Scissor lift platform**, which will be kept fixed at a **ergonomic height** for the operator. The latter is positioned in front of the arrival point of the reels, on a slightly inclined ramp. The manipulator will pick up the reels with precision, easily managing even the **longer coils that tend to flex**.

The release takes place on a **metal container with sides**, positioned on the floor, at 90° to the grip point. The container will be specifically designed to allow its **side entrance** of the roll.

#### Scenario B: Pallet to Pallet Movement

In this scenario, the manipulator will pick up the coils from a **wooden pallets** to deposit them on another. The system is optimized to maintain a **Maximum height of the coils from the ground 1,800 mm**, even for the smallest ones, responding to the specific need of the customer. We understand that the handling of small reels at low heights is not your primary concern, but the efficiency of the manipulator becomes crucial when the reels are at a considerable height!

A key aspect is the ability to handle reels placed on pallets in **two different orientations**: both for **length** that perpendicularly, overcoming the current problems related to their bending or orientation.