

# K-AUTOBLOCK AUTOMATIC TRUCK BLOCKAGE SYSTEM

LOGISTIC  
SOLUTIONS



## ADVANTAGES:

- The K-AUTOBLOCK automatically releases the vehicle, even if the wheel is maintaining pressure on the wheel-stop cylinder.
- If, during transshipment, the vehicles brakes are out of service (technical problem or brakes released), once the operator chooses to release the truck, the K-AUTOBLOCK automatically detects the vehicles progress and will not let it go (until it is correctly braked).
- The drivers do not require any instructions for the docking procedure.

## HOW IT WORKS:

### Instructions for the driver:

- Green light: the driver is free to manoeuvre.
- Red light: the vehicle is braked, all manoeuvre is forbidden for the driver.

### Instructions for the operator:

#### *Once the truck is parked at dock:*

- Red light: the door and the dock cannot be maneuvered. The operator can block the truck ("BLOCKAGE" button).
- Green light: the blockage is complete. The door and the dock can be maneuvered. The transshipment may begin.

#### *Once the transshipment is complete:*

- The operator closes the door and puts the dock back into resting position.
- The operator releases the truck ("RELEASE" button): the green LED light turns red.
- The truck may leave.

## K-AUTOBLOCK AUTOMATIC TRUCK BLOCKAGE SYSTEM

The **K-AUTOBLOCK** is an automatic truck blockage system. It was conceived to reinforce people's safety by limiting risks of accidents that generally occur during transshipment operations. The **K-AUTOBLOCK** allows the operator to block the vehicle at dock before the transshipment begins, and to release the vehicle once the transshipment is complete by simply pressing push buttons on the control cabinet.

A signalization system by two-tone lights (for the driver) and by LED lights (for the operator) enables a simplified usage for each participant.

## A TIDY AND CONTROLLED PRODUCTION

The **K-AUTOBLOCK** is divided in three parts: hydraulic, electromechanical and mechanical. Each part goes through individual supervisory measures. For example: the electromechanical part is controlled by specialized software with a control screen which checks each cycle. At the end of the assembly process, each **K-AUTOBLOCK** is controlled and tested, then stored in transport racks.



OPERATION AND USE

Compliance with ED 6059 recommendation and with machinery regulations



Waiting for truck

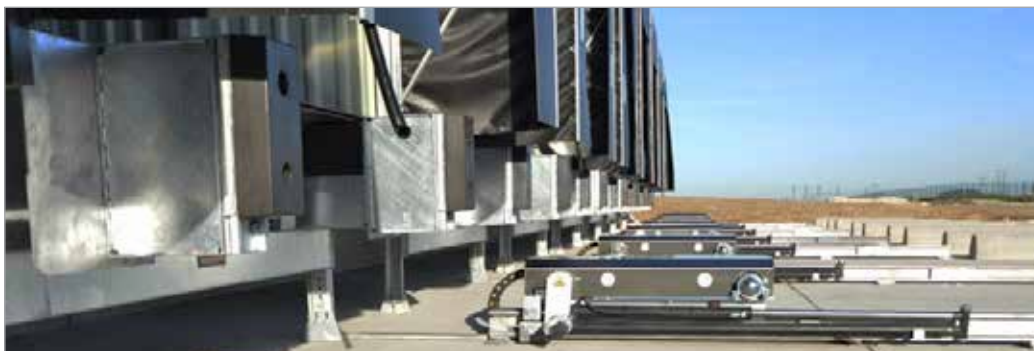
Wheel detection

Blockage

Release and return

Standard equipments for the K-AUTOBLOCK's use and maintenance

- Door position sensor
- Dock position sensor
- Dry contact relays for door and dock blockage
- Alarm beeper
- Exterior signalization lights and interior LED lights
- Maintenance key
- Summer/winter switch
- Key switch (inside control cabinet) for emergency release of the door and the dock
- Contact for automatic release at the end of a transshipment (door closed and dock at rest)
- Wiring with plug connectors for sensors and external liaison (facilitates maintenance)
- Safety LED lighting with adjustable twilight sensor
- LED lights on relays and coils (facilitates maintenance)
- Stabilized alimentation with protection against short circuits
- Programmable automation with alarm display



Maintain of vehicles at dock (ED 6059)

The INRS's recommendations, listed in the ED 6059 recommendation, clearly put forward the automatic blockage system's functions:

1. Eliminate all human intervention in the dangerous zone.
2. Immobilize the truck during loading and unloading operations.
3. Make it impossible for drivers to release the truck from the blockage system.

This material must be interlocked whilst the door and the dock can be maneuvered, to:

- A. Only authorize the door and the dock to be maneuvered if the blockage system is locked.
- B. Prevent the truck from leaving whilst the door is still open.

The K-AUTOBLOCK was conceived in respect of these recommendations, and to the two following points, whilst taking in consideration the studies and tests made by a certified organization (IRSST).

1. The **blockage** height is 390 mm.
2. Interlocking linked to the door and the dock. Indeed, to avoid the operator falling from the dock, it is imperative for the door to be normally maneuvered **\*only if the blockage system is in place** (with vehicle detection) AND NOT THE CONTRARY, which means that the opening of the door actuates the blockage system (and sometimes without vehicle detection).

Other important point for the client's safety:

The automatic maintain of a vehicle means that the system enters the Machine, or quasi-machine category since December 2009 : 2006/42/CE of the May 17th 2006.

CHARACTERISTICS:

Compliances

Machine: 2006/42/CE  
 Electrical equipment machine: EN 60 204-1 (2009)  
 Hydraulic security equipment: EN 282 (1996)  
 Control systems security: EN 13 849-1 (2008)  
 Compliant with ED 6059 recommendation (Maintain of vehicles at dock)  
 Pull-out force Class 3 of the FEM Vehicle Restraint Systems EN 11.005 (2015)

Technical characteristics

Designation: K-AUTOBLOCK  
 Power supply: 380 V 3-phased grounded neutral  
 Controls: 24 V DC stabilized, auto-protected  
 Hydraulic: Motor 1.5 KW, 220/380 Tri - 1500 tr  
 Pump: 9,8 cc, 12 L tank  
 Oil: HV 46 SAE 20 (low temperature)  
 Dimensions (except beam): 4500 x 710 mm (475 H)  
 Weight: 700 Kgs



INNOVATION REWARD 2015:

**Préventica 2015**

In 2015, the K-AUTOBLOCK was distinguished at the innovation award ceremony of the Preventica safety/security fair in Toulouse.

\*Normally, even if the alarm hasn't been activated or the door blockage system is intentionally neutralized (except in case of maintenance reasons, or rare situations controlled by a certified controller).

CERTIFICATIONS:

Quality Management System  
 UNI EN ISO 9001: 2008 Certified  
 Factory Production Control  
 UNI EN ISO 1090  
 Applicable Standard  
 UNI EN 1341-1 - UNI EN 3834-2

