## JANUS GATE AUTOMATIC READING OF RFID E-SEALS to enhance terminal operations, cargo security & e-shipments

Protection - Control - Identification - Tracking - RFID solutions - www.leghorngroup.com

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#### **JANUS GATE**

 JANUS GATE is a RFID-based system that optimizes terminal Gate-in/Gate out operations by exploiting e-seals together with the terminal Truck Appointment System (TAS).



## Terminal requirements

- To enhance/automize their operations (TOS-TAS)
- To have Gate IN / Gate OUT efficient and reliable systems at low cost
- To optimize security (seals)
- To minimize/reduce claims
- To save on labour costs
- To have accessible and sustainable pricing for all the parties
- To create an added value for their customers & other key players of the logistic supply chain (e.g. Customs)
- To be(come) an innovative Terminal
- Any investment has to be with fast payback

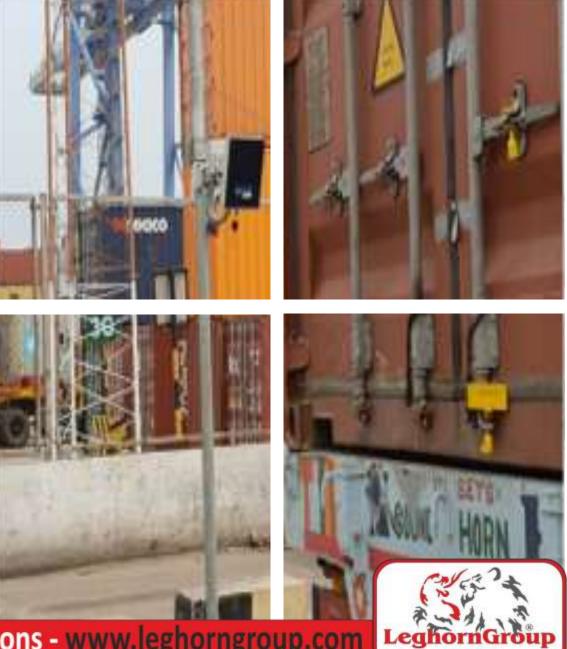




# What is RFID?

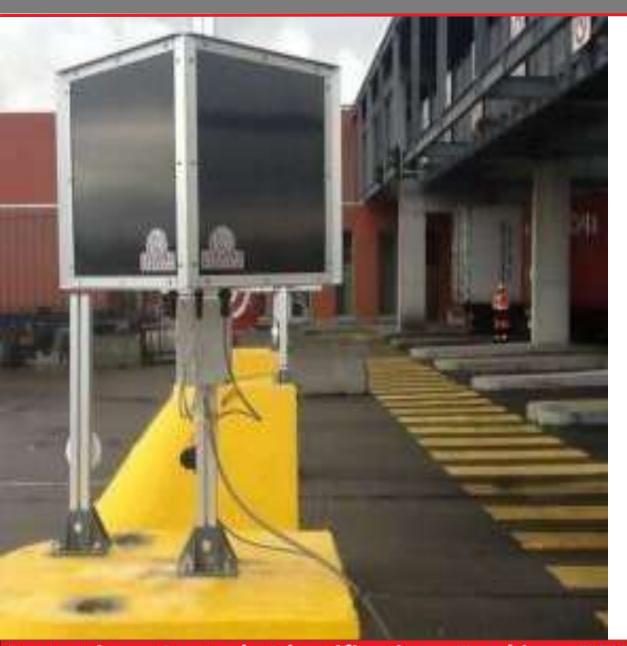
#### **RFID: Radio Frequency Identification**

- A technique for automatic identification and data communication by means of radiofrequency, contactless and without line-of-sight
- Several frequency bands available for use according to international standard and regulations – UHF (862-868 MHz, ETSI 320-208) is adopted in automatic gates for Terminals due to the better technical performance in reading distances, and reliability



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# How JANUS GATE works with RFID

JANUS GATE is a HW/SW integrated system that offers an all-in-one capability to monitor and manage the movement of RFID seals (e-seals) applied to truck/container:

- It automatically reads ID code of e-seals
- It gives automatic tamper evidence at truck/container transit when using e-seals tamper evident or three-state version

answering TOs's needs as for automation and enhancing of operations.





**GOAL**: Successfully introducing into the Terminal operations the e-seals together with TAS (Truck Appointment System), in order to optimize the trucks' flow, but also the OCR.

- Trucks transporting containers with an e-seal **do not have to stop anymore for a physical inspection** but can drive directly to the truck interchange zone via the dedicated fast lanes, **speeding up gating and preclearing operations.** No more queuing (fast-lanes).
- No more errors in entering the seal number (truckers/checkers).



### JANUS GATE equipment

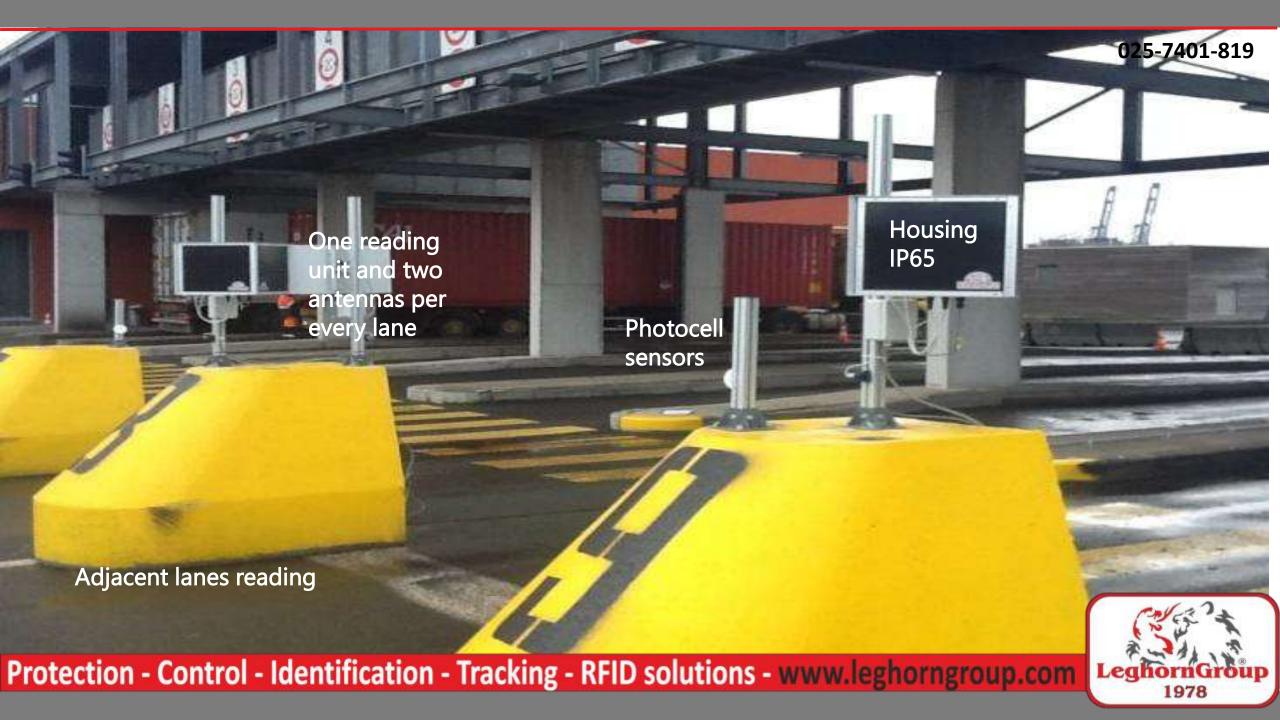
- No. 1 RFID UHF top performing read/write unit, standard EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C
- No. 1 integrated RFID UHF far field antenna (up to 4 can be managed by the unit)
- No. 1 antenna cable
- No. 1 220 Vac-24 Vdc universal adapter
- Middleware to perform RFID settings and collect/filter data from the field

As options:

- No. 1 external lighting equipment to give the operator a visual feedback about right reading operation.
- No. 1 photocell to activate reading operation.









#### JANUS GATE: key features

- RFID system compatible with all regulations worldwide
- Advanced Detection Algorithm and Lane Detection Firmware, for the accurate and efficient reading of e-seals, even in adjacent lanes
- Auto setting to improve the reading in any environmental conditions
- Fault Tolerance Management system: for 24-hour service continuity
- Special filter to avoid reading other RFID tags (only RFID e-seals are detected and communicated)
- Quick and easy installation and setup
- Fast TOS/TAS SW integration



#### It can work with any RFID e-Seals



UHF RFID CABLESEAL - logistic and tamper evidence UHF RFID NEPTUNESEAL – logistic and tamper evidence

- passive RFID
- ISO17712:2013 certified
- yes/no tampered indication



- passive RFID
- ISO17712:2013 certified, patent pending
- *Three state* status indication, open, locked, tamper

#### Field of action of LeghornGroup

PROTECTION: We can protect your goods and assets with security seals and various products for tamper protection. The company can create bespoke, technical solutions to meet client's requirements.



**CONTROL:** We ensure goods and people can be monitored using security products and integrated complete hardware and software solutions that allow the operator to monitor and intervene in real time, even remotely.



**IDENTIFICATION:** LeghornGroup's understanding of authentication along with their innovative technical products and solutions allow users to uniquely and securely identify, goods, vehicles, containers, animals and people.



**TRACKING:** LeghornGroup's real time GPS tracking devices allow users to monitor location, status and movements of vehicles and people.



**RFID SOLUTIONS:** LeghornGroup also manufactures solutions for product authenticity; automatic identification systems using RFID to aid traceability of objects, animals and people, offering new and efficient operations to speed up the supply chain.





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**FINDUS@** 

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