



# ARC Base RFID chamber solution

## ARC Base RFID chamber

Mieloo & Alexander's ARC Base RFID chamber solution is typically deployed in inbound logistics operations to count full pallets at EPC/item level to check and validate against the supplier ASN. Mieloo & Alexander also realizes conveyor-based RFID chambers to count and check high volume shipments on single items, mostly used in outbound processes. Key difference between the RFID tunnel and the RFID chamber is that the tunnel checks at carton level, and the chamber at pallet level.

## Customized design

The dimensions and "door-plan" of the RFID chamber are typically customized to the needs of the client, like available space, goods flow and material handling equipment used, 1, 2 or manual or automatic closing doors, or no doors:



*Example: low-cost full pallet RFID chamber reading up to 1.200 items in less than 10 seconds.*



*Example: full pallet RFID chamber on conveyor with automatically closing stainless roll-doors reading up to 350 kitchen parts in 7 seconds.*

## Superior reader technology

For stationary and dense tag reading, Mieloo & Alexander deploys the superior STARflex RFID readers with phased-array turbo antennas by Acceliot (the hardware spin-off of Mojix Inc.). STARflex readers are directly integrated into ARC Base for a lean architecture. Mieloo & Alexander works with Mojix and Acceliot since 2008.

## ARC Base

ARC Base RFID middleware is hardware OEM agnostics and provides device drivers for over 10 well known RFID OEM's like Zebra, Impinj, Kathrein, Nordic-ID, Acceliot, Keonn, Checkpoint, Nedap and etc. ARC Base provides technical RFID middleware functionalities like data-to-event filtering, cross read-filtering, location virtualization, low level process configuration, full integration capability and hardware monitoring. ARC Base also provides logistics solutions for RFID tunnels, RFID packing tables, RFID picking annex counting trolleys, RFID sorting systems, RFID tag coding and quality checking and off course RFID chambers.



## Key features

### Customizable enclosure and door-layout plan

Fully tailored to the physical environment and available space, material handling equipment used and goods flow requirements.

### Automated validation of pallet content

Easy integration with ASN for automated validation of pallet content at EPC level. Audio or light signal alerts to operators in case of mismatch and UI display to show cause of mismatch.

### Flexibility

Use in inbound or outbound process, or in both processes. Support rejection process with the ARC Base RFID tunnel and packing table or just accept the read result as true.

## Hardware components

### RFID reader and antennas

Superior STARFlex RFID reader with 1 or 2 Turbo phased-array antennas and 2 tot 4 excitation antennas for stationary and dense tag populations.

### Customizable enclosure and door-layout plan

Fully shielded to avoid cross reads.

### Fixed mounted vision sensor or handheld barcode scanner

To detect the carton ID and initiate the process.

### Sensor integration

To start and stop the RFID readcycle when the doors are closed.

### Android tablet

For operator feedback and maintenance purposes.

### Industrial PC (optional)

The ARC Base RFID chamber software is either deployed on an industrial PC or on a client hosted VM server on prem.

**Inbound and  
Outbound**

**Stationary and  
conveyor based**

**Fast and Accurate  
check of pallet  
content**

**Easy integration  
with WMS**

**Modular and  
customizable**