BALLUFF

Highest demands on quality and safety

SECURE IDENTIFICATION AND TRACEABILITY DURING WINE PRODUCTION AND STORAGE

The requirements for wine production processes are very high. They must meet extensive quality requirements in terms of taste and purity, must not contain any foreign substances, and must be produced in compliance with food regulations. For the safety of the end consumer, it is therefore important that even in the case of large production quantities, that each individual production step, from cleaning of the barrels and bottles to filling and storage, can be precisely traced. This allows individual wine bottles or barrels to be identified as sources of error in case of quality issues. If, for example, contamination occurs, the affected products must be found in the warehouse in order to prevent the contaminated batch from being further processed or even sold.

Continuous monitoring of the process steps

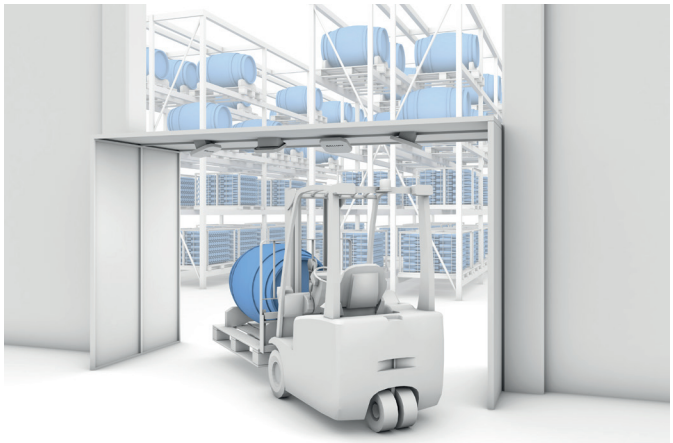
Seamless monitoring of the various process steps can prevent rejects and expensive product recalls by always knowing exactly which batches are affected. To achieve this complete transparency, the wine barrels and the metal lattice boxes in which the bottles are stored are tagged using RFID technology. For the metal mesh boxes, tags without metal foil are used because the background is already metallic. For the barrels made of wood, the metal foil is integrated in the tag. If, for example, a wine barrel is cleaned or the bottles in a wire mesh box are filled, this is recorded by an RFID tag before and after the work step. The tags on the barrels also withstand steam cleaning.

Identification by means of UHF antenna

UHF antennas are used to detect and localize the batches. They are ideal for gate applications. The antennas reliably detect all transponders located in a given area without contact. Based on this real-time tracking, it is possible to continuously track where the pallet cages and barrels are located. The information is available digitally as an overview – this helps in localizing individual batches, especially in the case of long storage times and the associated large warehouses. Since the installation of the system, which consists of RFID tags, UHF antennas and an evaluation unit, does not place any great demands on the existing IT infrastructure, it is particularly suitable for retrofitting existing systems.

Your advantages

- Guarantee of highest quality standards by monitoring production steps in real time
- Reliable and contactless detection of objects under the most difficult conditions
- Holistic identification solution from a single source
- Digitalization of documentation
- Reduction of the risk of rejects and product recalls and the associated damage to brand reputation
- Technical support in developing the right solution for your application



Gate application: Monitoring of individual process steps using RFID technology and UHF antennas

The UHF antennas detect all tagged objects in the room

PORTFOLIO

	BIS00P0	BIS01AW	BIS00NA
Product Group	UHF (860…960 MHz)	UHF (860…960 MHz)	UHF (860…960 MHz)
Working frequency	865…868 MHz	865…868 MHz	865…868 MHz
Dimension	133 x 18.4 x 133 mm	300 x 49 x 300 mm	
Antenna type	Patch	Patch	
Polarization	circular	right hand circular	
Anschluss		TNC-Female	
Housing material	PC	Aluminum, Antenna hood: Polymer blend	Steel, Aluminum, coated
Ambient temperature	–30...70 °C	–20...55 °C	–20 °C...55 °C
IP rating	IP67	IP67	IP65, with connector
Approval/Conformity		CE, WEEE	CE, ETSI EN 302 208, EAC, WEEE
Interface			Ethernet TCP/IP
Supported RFID technologies			UHF 860...960 MHz (BIS U)
Number of connectable R/W heads / antennas			4
Output power adjustable			17 dBm…33 dBm (50 mW…2 W)
Operating voltage Ub			19.2...28.8 VDC

In addition, select a suitable RFID tag from our UHF data carrier portfolio, at www.balluff.com

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