

## TECHNOLOGY OFFER

# PROCESSING AND AUTOMATIZATION

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## MOBILE TAGGING ROBOT

RFID Labeling of Wood Pallets (BB146)

### THE PROBLEM

The Euro pallet is one of the most significant reusable load carriers applied in logistics, 350 to 500 million pallets in circulation. To be able to follow and control the routes the pallets take in the future, the biggest pallet pool operator, i.e. the European Pallet Association (EPAL), is planning an identification and localization method which is based on RFID transponders. To this end, the new pallets must be labeled when manufactured, whereas old ones must be retrofitted.

### THE SOLUTION

The presented invention from BIBA - Bremer Institut für Produktion und Logistik is mobile applicable and complies with the EPAL guidelines that regulate the attachment of transponders to pallets. However, in particular, it complies with the short manufacturing pace of normally 6 to 8 seconds per pallet, for the tagging robot exploits the idle time subsequent to manufacturing. It climbs onto the pile of finished pallets and thereby attaches two transponders to each of them. This subsequent operation mode is also the reason why the existing manufacturing processes do not have to be changed. A prototype to demonstrate the invention is already available.

### ADVANCES AND APPLICATIONS

- The tagging robot can be applied in the new production of pallets, the retrofitting of existing inventories, or in the repair of pallets.
- It is cost saving because manufacturing processes must not be changed.
- The mobile unit is applicable at various locations.
- A cooperative purchase and use or a leasing solution is reasonable for smaller business operations.

Although the tagging robot has been developed for labelling Euro pallets, it is also suited for all other formats. Due to its easy applicability and mobility the robot is not only interesting to the manufacturers of Euro pallets, but also for small and large pallet repair and maintenance businesses.



**While climbing up the  
stack the tagging robot  
attaches two RFID trans-  
ponders onto  
each pallet.**

### FIELD OF APPLICATION

Logistics, pallet manufacturing  
and repair

### KEYWORDS

Euro pallet, wood pallet,  
RFID transponder

### PROPERTY RIGHTS

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Approved

### OFFER

Licensing, sales, cooperation  
and further development

### AN INVENTION OF

BIBA - Bremer Institut für Produktion  
und Logistik GmbH, Germany

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