

Innovations in pallet marking systems

from analogue to digital, replacing incandescent stamps with high resolution



Embalajes Blanco, founded in 1995 near Logroño, is the industry leader in the manufacture of pallets and wood packaging. Currently, Embalajes Blanco has more than 80,000 square metres of facilities, and provides 24 hour service to more than 1,000 customers throughout Spain.

Due to this production volume, they have very strict coding requirements, marking more than 8000 pallets per day with AENOR and Europallet stamps, and customising logos for each client.





Dynamic information marking: lots, dates

Traditionally, like other companies in the industry, Embalajes Blanco used the hot stamp marking system. This is a traditional system that places the marking on the wood mechanically by applying metal incandescent wedges.

Although accustomed to accepted industry practices, the manager of Embalajes Blanco is also geared toward innovation. With this in mind, Trebol Group proposed a totally innovative pallet marking system to Embalajes Blanco: Upgrading from incandescent stamps to high resolution. High resolution inkjet printers as a modern marking system offer infinite advantages over stamp marking:

- **High quality** printing of bar codes, logos, stamps and text.
- **Automatic message changing**, which allows a very simple way to customise printing with the logo of each client.
- Option of printing **variable data** in dynamic processes (e.g. lots, times).
- Integrated **high speed** printing that does not require production stops.
- Drastic **cost reduction**.

There are a multitude of benefits for a technology that has not been used for pallet marking, due to low reliability for this type of application. Conditions specific to the manufacture of pallets, such as **multiple vibrations in the line and dusty environments**, result in problems with traditional marking equipment. Trebol Group, as the official Allen Coding distributor in Spain, offers the most revolutionary, high resolution systems on the market: The IJ4000.

Due to its special features, the **IJ4000 is the only high resolution inkjet system that is ideal for pallet marking**. The key to the IJ4000 is the **piezoelectric printhead manufactured by Trident**, exclusive to the Spanish market, which provides unique and exceptional advantages:

- **Double the printing distance as compared to other systems** (up to 12 mm). Adapts perfectly to pallet manufacturing conditions and reduces the impact of dust on the head.
- Up to **100 mm of print height** with a single head: 30% more than other systems. This allows for large-size printing that is ideal for pallet marking.

- **Dual printing** system, which allows for simultaneous printing on both sides of the pallet.
- Exclusive **Head Self Cleaning System** that eliminates wood waste, obtaining stable and optimal print quality.
- Stainless steel construction that is unique in the industry, and an **exclusive patented design** that provides high resistance to shock and vibration on the production line.

These unique features convinced Embalajes Blanco to make a commitment to this innovative system. Two IJ4000s were installed. Due to such outstanding results, Embalajes Blanco added a fourth system three months later, with the aim of **completely replacing their old stamp marking system**.



Pablo Blanco: Manager of Embalajes Blanco.

We spoke with Pablo Blanco, manager of Embalajes Blanco, who discussed the improvements the IJ4000 has brought to his factory:

Q: What has the incorporation of the IJ4000 marking system meant to your production process?

A: In general terms, improvement in productivity, significant savings of time and costs, and above all greater comfort at work.

Q: How long did it take to switch from one job to another previously, with the hot stamp system?

A: With the experience of our staff it was quite fast, about 20 minutes to change the six stamps and another 15 minutes to reach the optimum working temperature. But now with the IJ4000 the change is immediate.

Q: How have your customers reacted to this new type of marking, with ink?

A: Very positively, once they saw that the quality of the marking is exceptional, very durable even in adverse weather conditions. Also, the markings are perfect on all pallet blocks, something that just did not happen before.

Q: What types and levels of savings are you referring to?

A: Many types and levels. Time savings for job changes that are now immediate. Electricity savings of 1600 W per resistor and elimination of electricity use for compressed air. Savings in stamp stock and annual replenishment, with a cost of 150 € per stamp. Savings in manufacturing time, with the

stamp system each pallet had to be stopped for 7 seconds per marking. And finally, in preventing delays due to melting of the resistors.

Q: Have you enjoyed significant gains in terms of job safety?

A: Of course. Although rare, there have been occasional fires on the pallets when a stamp is stuck on the wood block too long. Our company is filled with wood, chips and sawdust, all very flammable, so avoiding heat and sparks ensures the safety of our employees and company.

Q: What prompted you to perform the first test with this system, since you were already established in the field of marking?

A: We are a family company, but willing to innovate when it comes to the quality of our products and the satisfaction of our customers. I just needed Trebol Group to give me the confidence that we could achieve satisfaction, and frankly we are very satisfied with our investment.



High resolution logo printing



Super intuitive touch screen

We also spoke with Miguel Angel Gonzalez, Production Manager for Embalajes Blanco:

Q: As the production manager, what has been your experience regarding the installation the Allen IJ4000?

A: It has been a breath of fresh air. Before, I had to constantly change the stamps in our six lines, stop production for breakdowns and ensure that each production resulted in the six points marked correctly, something which did not always happen.

Q: Do you think that your production system has improved significantly?

A: Of course, yes: higher production, higher quality, zero waste and avoidance of downtime since job changes are now immediate, safe and reliable.

Q: What do the operators who work daily on the line with the equipment think?

A: They forget to constantly monitor if the marking goes well, but it always goes well.

Changes from one job to another are super fast with the use of the large touch screen, and very intuitive since all messages are loaded on the 10" screen. The installation has been a great success.

In summary, Embalajes Blanco's commitment to innovation has resulted in great success, positioning the IJ4000 as the ideal marking system for pallet marking.



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