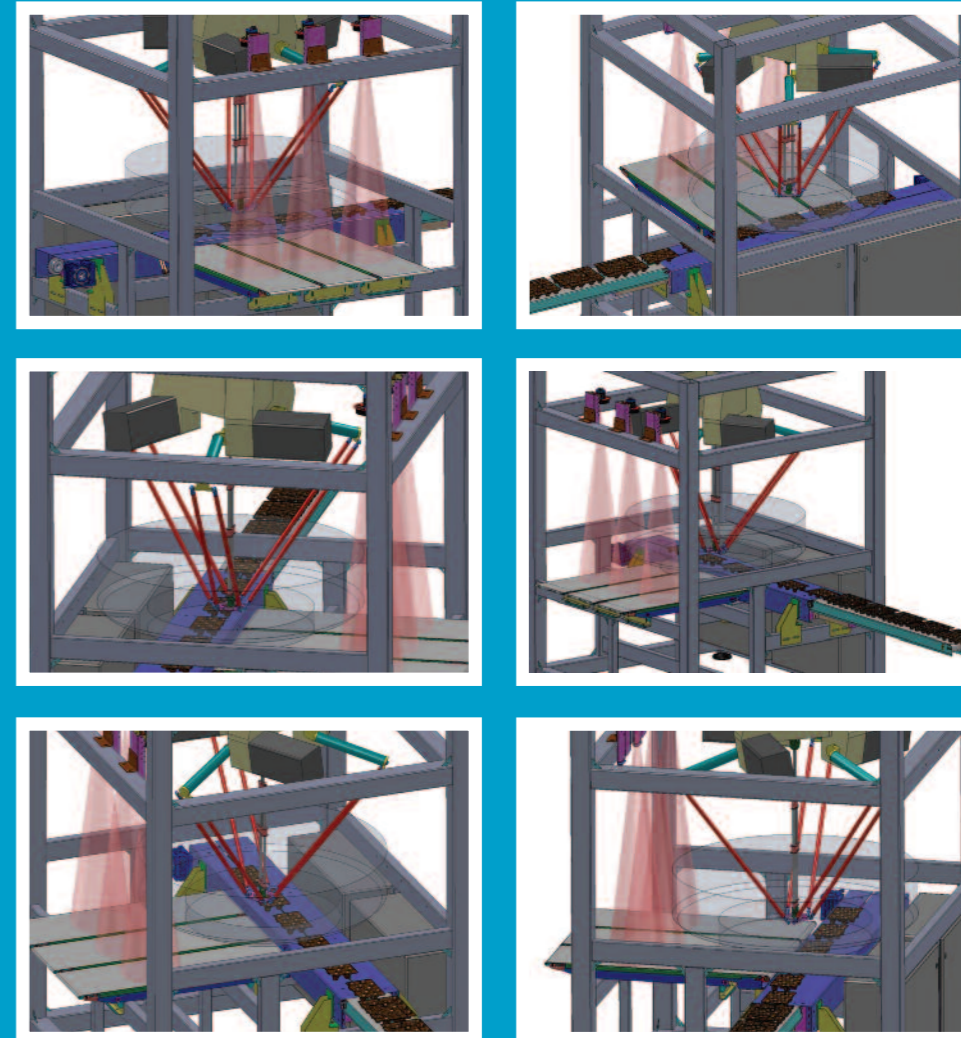


Packman Vision

4 axis vision-guided robotic system for loading individual products at very high speeds into trays and cases.



PACKAGING LINE AUTOMATION



Imelda Kehoe, quality manager



Tekpak Automation Ltd from Ireland is a leading manufacturer of robotic pick and place and case packing systems. Since its establishment in 2003 it has changed its focus from distributing other manufacturers' machines to manufacturing its own range of packaging solutions. Piotr Sadowski reports.

The initial business plan when changing the operational focus of Tekpak Automation Ltd was to move from 80 per cent distribution and service operations to 80 per cent in manufacturing in three years. In fact, this happened in just one year and what certainly helped in this rapid transition was the recruitment of key personnel, including Billy Roche, the technical director who coordinates Tekpak's R&D and design processes.

"We also formed strategic partnerships with key component suppliers, such as Elau, Bosch, Rexroth, Allen Bradley," adds John Kehoe, director and founder of Tekpak. "Our business permission now is to become one of the top manufacturers of Robotic Pick and Place and Case Packing equipment for high volume, high speed food manufacturers in northern Europe. We work with large customers, such as Unilever and Premier Foods."

The company has a number of important objectives:

- To design and build packaging machines which are safe, reliable, efficient and durable using high quality components.
- To learn from the projects it carries out so that it can improve the service each time.
- It aims to build on designs it has already produced so it can continuously improve and offer customers shorter lead times.
- To give Tekpak's customers not just a machine but everything that they will need to operate it efficiently.
- To respond to customers in a way that prevents problems before they occur and deal with problems in a prompt and efficient manner.
- The company aims to create a working environment that encourages the personal and professional development of staff, especially in areas that can help Tekpak to achieve its objectives.▷





Strong results and excellent solutions

Tekpak's most recent turnover was up 50 per cent on the last financial year. It is one of only around four or five companies which can offer complete packaging lines, including robotic pick and place. Around 70 per cent of its current customer base is in bakery, confectionery and convenience food sectors, but it also supplies the pharmaceutical sector. Apart from major operations in Ireland and the UK, Tekpak also has activities with partners in Poland and Nigeria through references and contacts from existing customers. "We have not specifically targeted these areas," says Imelda Kehoe, quality manager at Tekpak. "However, we gain the majority of new customers precisely through positive references from existing clients, and also through an e-business campaign on our website, blog and direct marketing."

Tekpak offers two types of robotic loading systems: the Packman Pick and Place 2&3 axis designed for loading several products at once into cases or cartons; and the Packman Vision 4 axis vision-guided robotic system for loading individual products at very high speeds into trays and cases.

"What makes us different from our competitors is that we do not just supply stand-alone machines," says Imelda Kehoe. "We will fully integrate our systems with existing lines and we will also manufacture all the additional components required to make the complete line work, for example product collation and feeding direct to flow wrappers, tray denesting, case erectors and closers, and other components. We have

the in-house expertise to handle the complete packaging line. In terms of the technical support, we have our own engineers who are experts in our own product range. In addition, we have formed strategic partnerships with key robotic component manufacturers who offer worldwide product support and training. This is crucial for our export plans."

All of the machines manufactured by Tekpak go through rigorous risk assessment before CE marking. Safety is designed into the machines. Tekpak is a PPMA member and it is from them that the company receives regular updates in safety legislation changes, which are subsequently implemented into the producer's design processes.

Current trends

The larger food companies are looking at reducing costs whilst maintaining or increasing throughput. Often the end-of-line case packing is the last part of the packaging line to be automated, but Tekpak has more enquiries now than ever from companies looking to automate this final piece of the line.

Smaller portion sizes and individually wrapped multi-packs lead to faster unit speeds, therefore the market trend is for smaller pack



sizes using higher speed, more flexible packaging formats which demand quick size change and 'right first time' size change elements to machines. Tekpak is also receiving more enquiries from suppliers of supermarket own brands and convenience and comfort foods, such as ready meals, biscuits and confectionery.

Investment activities and future plans

During the period of 2007 to 2009 Tekpak invested a quarter of a million euro in the development of its range of standard robotic modules, which are specifically designed for food packaging. The company continues to invest 20 per cent of its HR overhead in R&D. "Our robotic loaders will be further developed to suit all pack weights and speeds, and will make them even easier to integrate with customer-specific requirements," says the quality manager. "We will also simplify their integration with other machines, such as flow wrappers, cartoners, case erectors and other appliances."

During the next one to two years Tekpak will be developing a high-speed flow wrapping machine which is integrated with a robotic loading unit for individually wrapped products, such as plastic spoons for infant nutrition and confectionery products. There will also be an increased capacity at Tekpak's manufacturing facility, so that the manufacturer is able to double its output. Last but not least, the company is also planning the further development of its export activities, particularly across markets in northern Europe. □

www.tekpackautomation.com