

Flexibility to match the market key to specifying packaging systems



By Andy Pretious, Sales & Marketing Manager at Automated Packaging Systems.

The advantage of small and medium enterprises (SMEs) over larger companies is frequently down to the ability to be more flexible, agile and responsive. Business growth depends on being able to diversify and adapt the offer to meet market demand, often in a relatively short space of time.

SMEs build their success on relationships, reliability and delivering quality. It's therefore important to have a packaging solution that reflects this in the day-to-day service provided to customers. Equally important is managing cost and investment in equipment that can meet these needs. While value for money may be front of mind, there are a number of other factors that need to be taken into account when specifying packaging equipment, not just in the short term, but looking ahead and investigating wider market trends to ensure a solution is not only fit for purpose immediately, but scalable to ensure it works hard for the business well into the future.

EVALUATING THE MARKET

It is at this time of year, when many businesses are putting the finishing touches to future capex budgets that consideration of the return on that spend needs to be made. By putting in the legwork to anticipate future needs, you can examine not only what equipment will deliver in terms of output and service to existing clients, but also what new market opportunities it will open up.

With a surge in the construction, nuclear and automotive markets, there has been knock-on growth across a number of associated markets in the past two years. To gather insight into the long-term possibilities market predictions, policy decisions and industry reports can all provide valuable information as to how marketplace drivers are likely to impact on current company capabilities as well as stimulating ideas on how to ensure that the business can stay ahead of the curve and maximise any fresh opportunities that present themselves.

For example, in February 2017, the government released a white paper stating the need to build 250,000 additional homes each year which is set to bolster, if not boost, the growth in the construction market. This undoubtedly represents an opportunity for manufacturing and construction markets, but businesses must ensure that they are ready. With

growth in nuclear generation and construction predicted to continue into 2020, this is also likely to create growth in the industries that provide materials into those markets.

These market insights can inform business decisions and help plan for anticipated requirements for both growth with existing customers and new opportunities. For example, the number of bags needed per annum will not only impact on the method of bagging but potentially the number of machines required.

Once calculated, and the method of bagging whether manual, semi-automated or fully automated bagging is decided, this calculation can then be up-scaled to reflect planned future scenarios based on commercial growth objectives. This will ensure that systems can cope easily with sudden and planned fluctuations in demand.

PLAN FOR THE FUTURE

Not having the right tools for the job required can have a significant impact. Organisations must specify based on the number of product lines they run, coupled with how often they change these lines, or whether they need these product lines to run concurrently.

Table top packing machines are portable, and one step up from hand bagging, bringing speed and consistency to hand load applications. Solutions such as the Automated Packaging Systems' Autobag PS125 can operate at speeds of up to 25 bags per minute and is a straightforward table top design that has a plug-and-play configuration. This level of solution is ideal for low to mid-volume packaging operations.

Another element for consideration is printing and labelling. SMEs specifying a packaging solution need to consider whether there is any requirement to include labelling and printing in their offering to customers. Increasingly, customers are looking to increase transparency throughout their supply chains with labelling playing a critical role in this process.

Even if an immediate requirement has not been identified, it's vital to review the potential future requirement should the business or industry grow substantially or develop its technology. For example, a packaging machine like the Autobag AB 180 OneStep can pack up to 30 bags per minute whilst incorporating printing of high-resolution text, graphics and barcodes. This solution is ideal for short production runs and build-on-demand operations.

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KNAPP's picking robot named Best Product at LogiMAT 2017

With warehouse staff reaching their performance limits in processes that demand high performance and quality for long periods of time, one solution is the use of industrial robots. Achieving reliable robotic picking had been considered an insurmountable task but KNAPP's Pick-it-Easy Robot has made this a reality – and the solution has just scooped the Best Product award at the LogiMAT 2017 exhibition in Stuttgart.

Versatile solution

Designed to handle a wide range of articles in applications where consistently high throughput is required, KNAPP's Pick-it-Easy Robot is a goods-to-person picking system that is suitable for various business sectors and sales channels. Robotic and manual workstations can be easily combined to make best possible use of their individual assets. The robot cell offers particular advantages to companies with multi-shift operation that are striving to reduce errors and the associated costs.

State-of-the-art technology

Sophisticated image recognition and processing software detects the target article in the source container and calculates the optimal grip point on the article's surface. The six-axis articulated arm robot positions the gripper precisely over the grip point, with the flexible gripper able to pick articles lying in any position in the source container. Constantly monitored by sensors, the system picks up the article and transfers it safely into the target container. The Pick-it-Easy Robot complies with all safety standards and guidelines.

High performance

In continuous use, the Pick-it-Easy Robot attains a significant increase in productivity, while maintaining consistently high quality in comparison to manual picking. An ideally designed goods-



Pick-it-Easy Robot picks articles from the source container and transfers them to the target container.

to-person workstation can process 1000 lines per hour; over a longer period, however, such performance is not possible for the human workforce. The Pick-it-Easy Robot is a sensible alternative to humans in warehouse areas that demand continuous high throughput; depending on order structure, article range and capacity peaks, a robot cell can replace one or more manual workstations. If, for example, a manual workstation with two-shift operation is replaced, the payback period for the Pick-it-Easy Robot is very short.

Reliability and flexibility

KNAPP's zero defect warehouse philosophy, based on modern image processing and recognition technologies, has been incorporated in the development of the Pick-it-Easy Robot. The work process is monitored by several sensor systems, with any errors being detected and corrected automatically or, if necessary, forwarded to a manual workstation. The cost of errors is considerably reduced and delivery quality is enhanced. The safety devices and sensor systems guarantee the safety of personnel

and prevent material damage. The Pick-it-Easy Robot offers a high level of flexibility and simple integration into existing systems, with the ability to process various types of container. The arrangement of the articles in the container is flexible – both chaotic and stacked articles can be handled smoothly, as the Pick-it-Easy Robot always finds the ideal gripping point for each item.

Industry 4.0

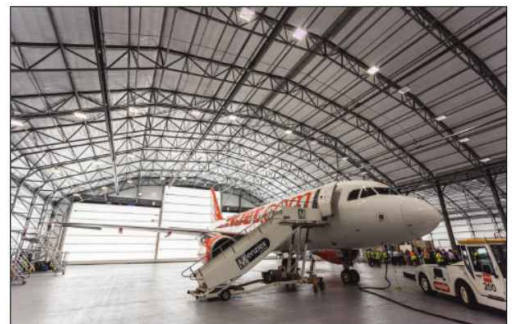
With its Pick-it-Easy Robot, KNAPP is taking an important step into the Industry 4.0 era. The robot has become the co-worker, or 'cobot'; with the Pick-it-Easy Robot, better distribution of the workload and up to a fourfold increase in productivity are achievable. Retrofitting and integration of the robot into existing intralogistics systems is also possible. With the Pick-it-Easy Robot, KNAPP has added a valuable solution component for the zero defect warehouse, its concept of an intelligent and networked site.

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Discover Rubb Thermohall™ insulated building systems

Rubb's Thermohall™ insulated fabric provides many benefits to help promote energy efficiency. Thermohall™ is a high quality, heavy duty, durable PVC fabric system, which is available in insulation depth from 50mm to 200mm. This provides different levels of U-Values from 0.67 W/m2k to 0.19 W/m2k.

Thermohall™ cladding consists of a flexible external PVC layer and an internal PVC layer with self-cleaning properties, which encapsulate a series of air tight PVC 'pockets', each featuring a non-combustible glass wool insulation core. The insulated panel system provides a full vapour seal, which minimizes thermal bridging and reduces infiltration losses. This reduces condensation on framing members, improving insulation efficiency. The environmentally controlled structure helps facilitate air conditioning systems and



internal heating.

Rubb's Thermohall™ fabric can be used to clad many Rubb structure types, from standard storage warehouses up to large scale multi-span aircraft hangars and sport facilities. This insulation solution

offers great energy savings and is environmentally friendly, both in fabrication and operation.

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