

"Wrapping machines are a form of packaging technology which is specifically used to wrap flexible packaging material such as paper, aluminium, plastic and film"

Both of these machines usually handle around 2,500 to 500,000 products but again this is dependent on the type of machine that is used and the quantities that it can undertake. Now that it has been understood how the flow packaging machines work, it is time to assess how companies are adapting their machines to ensure that they are more cost effective and more efficient. Thus, it is important to understand the benefits of making these machines efficient and cheaper.

HOW ARE THESE MACHINES BECOMING MORE EFFICIENT?

Efficiency has become an impactful trend in recent years not only due to saving costs but also to do with climate change. It is not shocking that a more efficient production line will lead to cheaper production overall. However, these machines need to be energy efficient in order to protect the environment. The building and running of the machine require a lot of energy which damages the ozone layer. Clients are beginning to desire products that are energy efficient to create a sustainable future - and one of these companies is ACMA. The company is invested in the development of green packaging solutions with their adoption of tamper evident carton boxes and eco shell which acts as a replacement for plastic in the flow wrapping process. This can be applied in their highly sustainable CF 100 flow wrapping machine which is known to reduce the amount of energy input into a given packaging cycle. In turn, the desire for a more energy efficient product is being tackled by packaging production companies.



**WITALI NEUMANN ,
COMMERCIAL DIRECTOR
AT CHOCAL**

Sustainability – a word which has become part of our daily life. No matter if it is about sustainable technologies, saving energy or reducing waste – the consumers' willingness to contribute to a better future for our planet is obvious. The market needs to adapt to this demand, and this is of particular concern to the packaging industry. As packaging is part of our everyday life and necessary to protect products, it is extremely important for our industry to invest in research for sustainable packaging materials.

CHOCAL has always supplied packaging material with great recycling performance. However, aluminium cannot replace all plastic packaging. New packaging materials must be developed to reduce the global waste problem.

Regarding new packaging materials, there is a specific challenge in the food sector: Firstly, the material must be sustainable and suitable for packaging products. Secondly, it must be suitable for food contact and protect the product. During the past years, our company has developed two new packaging solutions which are sustainable on the one hand, and further conform to food regulations on the other hand. Our preformed paper packaging can be recycled in the paper cycle and our CHOCAL Natural Fibre (CNF) dissolves completely on the home compost without leaving any microplastics behind. Due to its transparency, it is a sustainable alternative to replace the conventional plastic packaging. There are several options for compostable or recyclable barrier coatings which can be applied to the paper and CNF for product protection.

By continuously working on the research for new packaging possibilities, we actively contribute to the reduction of plastic waste at CHOCAL. However, there are still a lot of challenges to address towards a more sustainable packaging industry, for which we will for sure see some interesting new solutions in the future.

HOW ARE THESE MACHINES BECOMING COST EFFECTIVE?

It is fair to say that funds for many companies have been incredibly stretched. The pandemic has meant that companies have had to analyse their costs and reduce costs as much as they can in order to make ends meet. Of course, companies in the past have desired to create the cheapest outcomes possible when it comes to production,



but the social and economic climate has added further pressure on the companies to save. Packaging companies and flow wrapping companies have noted this trend from their clients meaning that innovation has occurred to ensure that their products are cheaper yet meet all the required client demands. Research has found that many packaging companies can use certain means in order to reduce operational costs. But what are these methods and how does this correlate specifically to flow-wrapping technology”?

The first way in which packaging machines can reduce costs is by reducing the amount of packaging waste that the machine produces. Machines may produce vast amounts of packaging waste for various reasons. One of these reasons is because the quality of the material used is poor, or because a machine is simply packaging too many goods. However, these issues can be stamped out quite simply. Technological advancements mean that many automated machines can programme to use the perfect amount of material given a specific packaged item. This not only creates more consistency on the production line, meaning that the product has a better-quality finish, but it also most importantly saves on material costs. An example of a flow wrapping product which is believed to be cost effective is the GEA Aquarius Platformwrap which is used to package lollipops. It is believed that the control system on this wrapping machine, which is supplied with a PLC and touch screen, is the main factor in making the machine cost-effective. The optional automatic monitoring of production can also ensure labour savings - which once again cuts back on company expenditure. The lack of human intervention also reduces cost as it has been reported that “69,208 non-fatal injuries were reported by an employer” in a packaging machine factory. This could mean that an employer could lose out on working with key members of staff, which will in turn cost the business in the short run. Therefore, flow wrapping machines are financially beneficial for a business as well as highly energy efficient.

Overall, wrapping machines are a vital component in the confectionery market and production process. The political and social climate has meant that clients desire cheaper and energy-saving machines for the successful management of a company. Therefore, packaging companies are adapting their methods and their machines to meet these demands. **IC**

ROBERTO LATTARULO, MARKETING MANAGER AT ACMA



The world is moving towards the reduction of plastic or multilayer-based materials, which today are widely used in the packaging sector. ACMA, a Coesia Company, is making extensive efforts to give an effective answer to this question, carrying out numerous tests with the Sustainability Lab, in partnership with some of the most important brands in the field. The goal is to verify the behavior of sustainable materials for both flowpack and wrapping technologies.

Specifically for the wrapping, ACMA engineers have developed the Material Gate through which tests are carried out on new sustainable materials, including paper-based ones, to assess their performance on the double twist style. The challenge is to overcome the structural limits of these materials, which can be damaged during wrapping, e.g. during the closing phase of the "double staple" format. The final purpose is to ensure an excellent wrapping quality, a real trademark of ACMA, while allowing customers to use solutions with a reduced environmental impact and safeguarding the high performance of the installed machinery.

The project is attracting the attention of some of the most important material suppliers and Confectionery producers. We are facing a crucial time with strong challenges to overcome: the Sustainability Lab is our answer. It is an important opportunity to change the future of sustainable production, contributing to the development of new materials guaranteeing machine productivity and wrapping quality.

