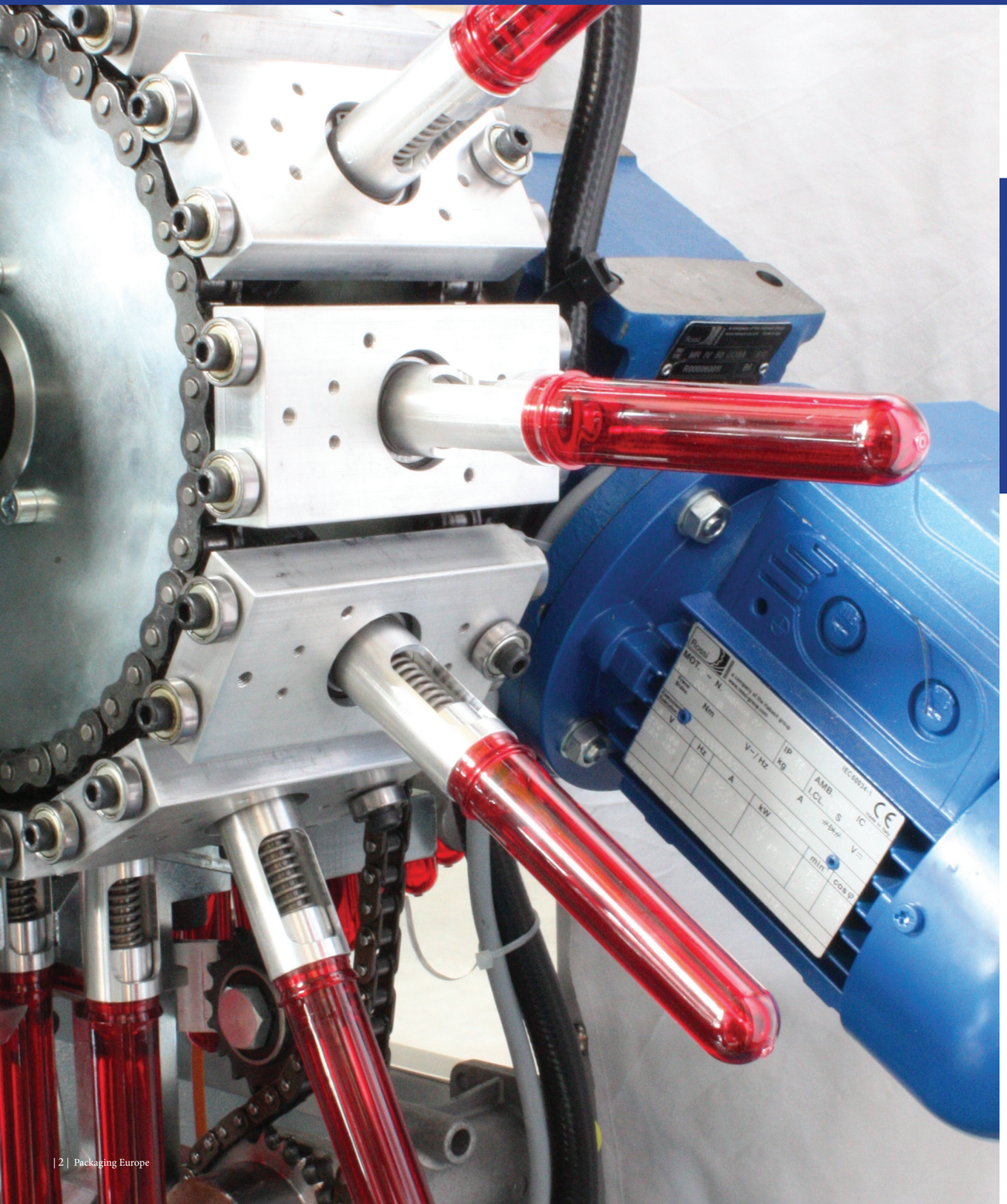


small cavitation blow-moulding machines that offer an extraordinary level of flexibility. By introducing new technology and the world's most innovative blow-moulding systems, 1 Blow has set new standards for the industry. Philip Yorke talked to Olivier Perche, the company's sales director, about its latest and most versatile blow-moulding equipment and plans for future growth.

DREAM MACHINES

When a leading manufacturer of blow-moulding equipment went into liquidation in France in 2009, the engineering scientists it employed decided to create a new company that would specialise in the design and manufacture of highly versatile, small run blow-moulding machines. Thanks to their experience acquired over many years in the PET sector, 1 Blow developed a range of PET blow-moulding machines for the production of between 1000 to 8000 bottles per hour.

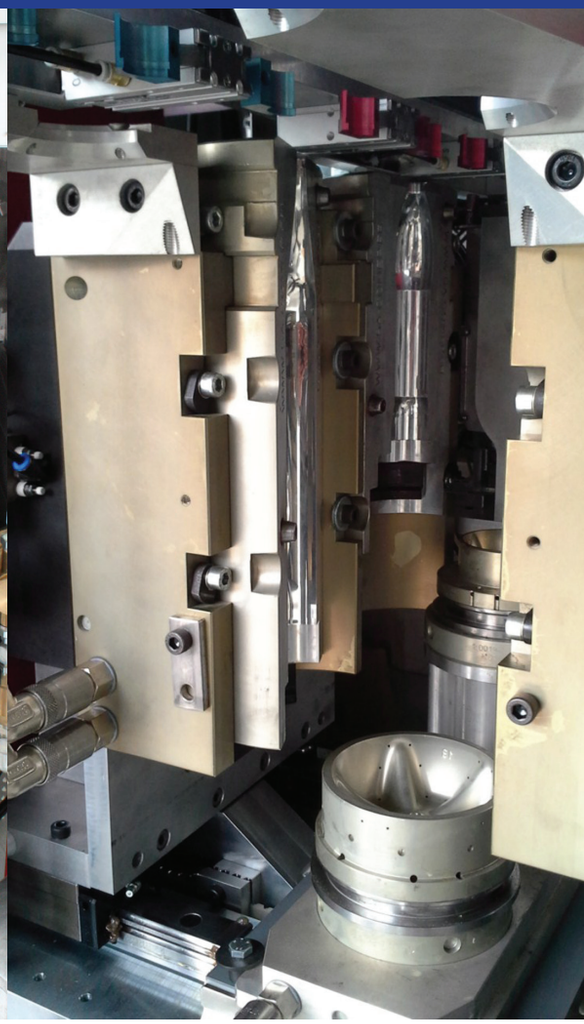
Today, whatever the requirement, whether it is for round, square, oval, asymmetrical shapes or hot-fill bottles, with or without neck orientation, 1 Blow has the perfect answer. This year the company presents a new generation of blow-moulding machines for the production of PET bottles. Its 'Green Blow' machines are more environmentally friendly and offer a very low power and air consumption level compared to equivalent blow moulders. Other key advantages of this latest range are the small space required for the equipment and fewer mechanical moving parts, combined with electrical synchronisation by servo motors with optimised movements. Furthermore, moulds by Sidel, Krones, KHS, Sipa and Side, as well as many others, are fully compatible with all 1 Blow moulding machines. Therefore, no investment in new moulds is required. Designed for small and medium runs, 1 Blow machines may be used as complimentary production to bigger machines thanks to their easy and quick commissioning features.

Unique features

All 1 Blow machines offer a range of unique features, which include a very limited footprint of 2X2 metres as the electrical cabinet is integrated into the main machine frame. In addition, the electrical connection is compatible with all worldwide standards meaning that no transformer is required. The simple design means there is no preform turning device, no hydraulics and easy access to all components, and in particular to the mould itself.

Perche said, "Our advanced blow-moulding machines are unique and all machine parts are manufactured, assembled and tested locally, so we exercise optimal quality control at all stages of production. Our target is to be simply the best in the world, maybe not the cheapest, but possibly the most reliable and best engineered, particularly in the region of 1000 to 8000 units per hour. Our main clients are bottlers and converters, who appreciate the benefits of being able to make changes quickly and efficiently and to be able to re-use existing blow-moulds. Flexibility is important and we believe our machines offer the greatest flexibility available on the market today.

"Unlike our competitors, our mechanical stretching device is driven by a servo motor and we use servo motors for quick movements so that each step in the process is optimised. We also offer very low 40-bar air consumption thanks to our new electro-valves. Our new 7-bar driven systems are running with air that is recovered after blowing takes place. Our customers can start with a basic machine and they can upgrade it and ▷



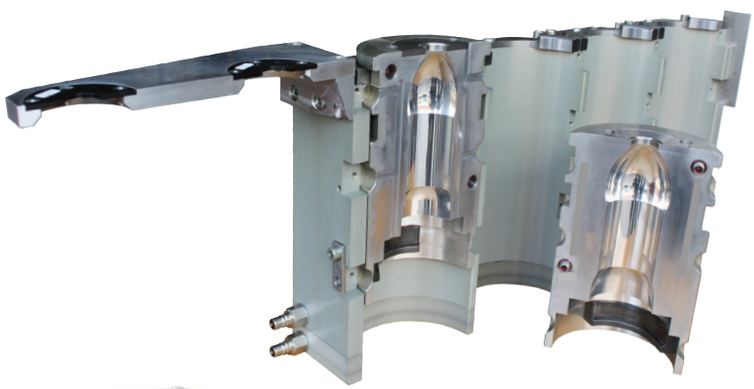
retro-fit if required. Over 80 per cent of our products are exported and each machine is tailor-made with its configuration decided by the customer. Currently our main markets are Europe and in particular France, Switzerland, Germany and Belgium, as well as North America. We are a young and dynamic company that is committed to maintaining our technological lead and to creating products that meet the demanding requirements of today's marketplace. For the foreseeable future we will continue to grow organically and build upon our success and growing reputation in the industry."

Exceptional adaptability

With small cavitation machines designed for short runs and a variety of complex products, reliability and flexibility are key components. Adaptability plays a big role in the efficiency of any machine in order to produce a wide variety of products with various production modes. The success of the company has allowed it to develop and expand its product portfolio and it now offers from one to four cavities and boosting outputs up to 8000 bottles per hour, which equates to 2000 bottles per cavity per hour.

In order to achieve the shortest possible cycle times, 1 Blow has optimised the use of a rotary machine configuration for efficient handling and loading and for the feeding of preforms into and out of the oven. The capacity of the three-section oven has been increased in order that difficult heating requirements, such as heavy wall or opaque colour process requirements, can be catered for. Another key advantage is the use of the thread start for neck orientation purposes which eliminates the need for specially moulded detectable features, which in turn means that any standard preform may be used.

In addition, vertical bands along the preform are preferentially heated to enhance higher stretching of the parts that are closest to the mould, thus providing more materials for the areas of the preform that have to stretch to the farthest reaches of the mould. □



For further details of 1 Blow's unique, new generation of PET blow-moulding machines visit: www.1blow.com