

SIPA SINGLE-STAGE AND TWO-STAGE TECHNOLOGIES COVER ALL THE BASES IN SPECIALTY CONTAINER PRODUCTION

With the addition of two smaller models to its ECS range of single-stage injection-stretch-blow molding (ISBM) machines, PET packaging technology specialist SIPA has further improved its position to provide a full service to companies producing specialty containers in all shapes and sizes, whatever the output requirement. The new ECS SP machines, ideal for production of containers as small as 20 mL, complement ECS HS and FX models that are particularly suitable for high outputs of wide-mouth jars, oval containers, and other out-of-the-ordinary products. In fact, these units have the highest output on the market for any integrated ISBM system. These extremely versatile systems can produce ultra clean bottles, pasteurizable containers, warm filled

bottles, wide mouth jars, round or square shaped bottles, oval, asymmetric or tailor-made containers. The FX model can even simultaneously produce containers with different sizes and/or shapes. Whatever the machine, processors will be able to call on expert assistance from SIPA's own Bottle Development Department to create new products for their own special markets.

DEDICATED PREFORMS FOR COST-EFFECTIVE PRODUCTION
Single-stage machines are particularly cost-effective when it comes to production of specialties. Because preforms are blown as soon as they are molded, the systems allow significant bottle weight reductions. The ECS integrated process allows producers to make

dedicated preforms in order to obtain the optimum characteristics (thickness, diameter, height, etc.) for the particular size and application of the finished container. SIPA's experts can work with customers to create the best possible design.

ECS systems have also been shown to be extremely versatile in processing materials with very different characteristics compared to standard PET, including PEN, PLA and OPP.

FOR LOTS SMALL AND LARGE
The new ECS SP 50 and 80 are ideal for production of small lots of containers with various designs and characteristics, for such markets as detergents, pharmaceuticals, personal care, and foods. They can also make the miniature



drinks bottles used by airlines for their light weight and break resistance. Meanwhile, HS and FX types are increasingly used for such products as wide mouth jars, oval and asymmetric containers. It is possible to produce containers with a wide range of capacities, threads and neck finishes. For oval and asymmetrical containers, SIPA offers different technologies for the preferential heating of the preforms to ensure optimal material distribution. Outputs up to 30,000 bottles/hour are possible. SIPA's ECS platform can produce any type of container for sensitive products to be hot filled at the required filling temperature with some of the lowest running cost achievable in the market. SIPA was in fact the first systems pro-

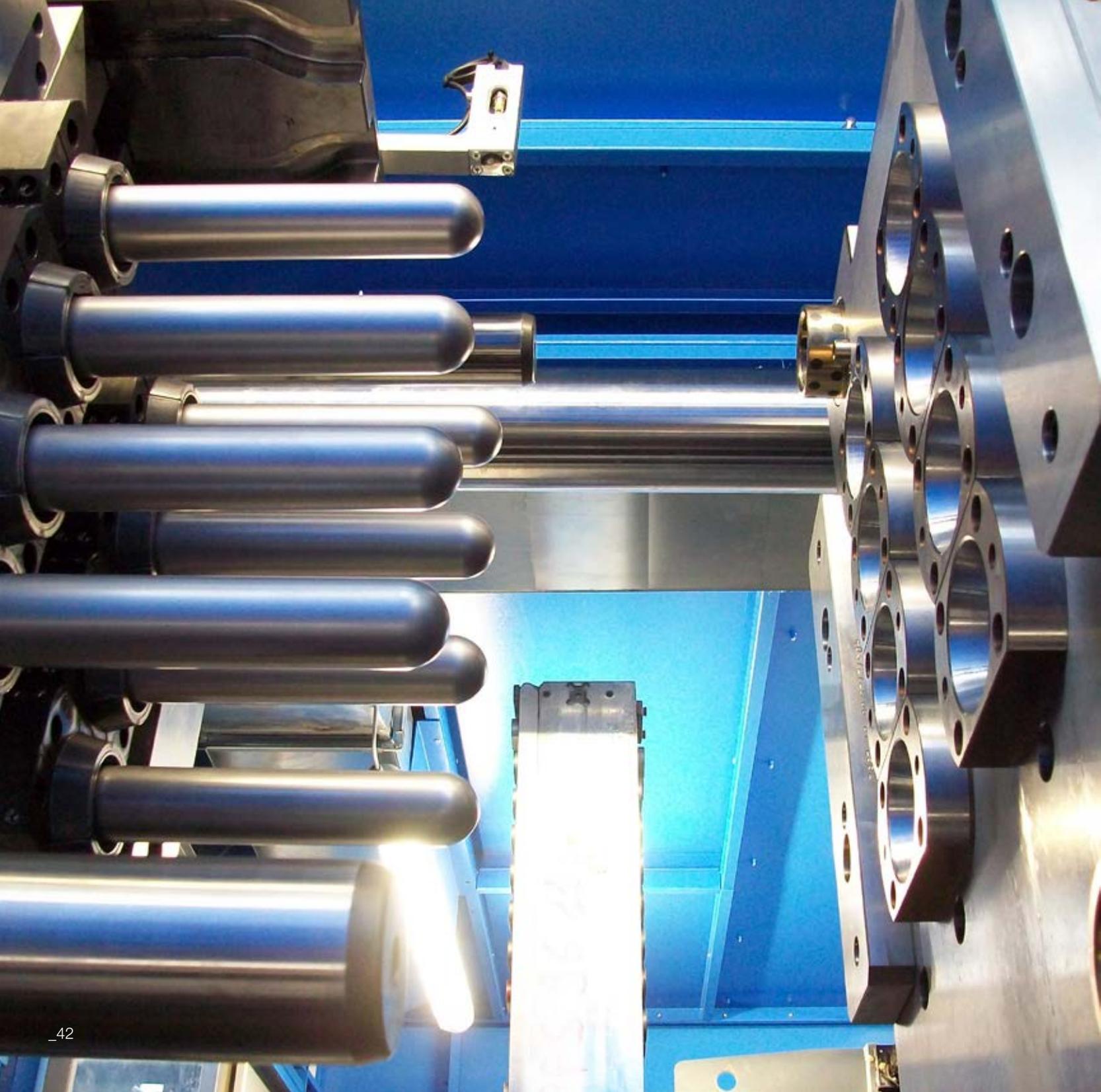


vider to introduce the amorphous reinforced neck for hot fill applications without the need of the traditional crystallized neck, thus reducing dramatically the container production cost.

IDEAL FOR COSMETIC CONTAINERS

SIPA also sees strong prospects for making inroads into the prestigious market for very high quality small bottles for cosmetics and beauty care products. It recently developed prototype cosmetic containers varying in volume from 200 mL to around 475 mL in round, oval, and rectangular shapes, with striking designs to complement their target contents. ECS machines stand out for their abi-



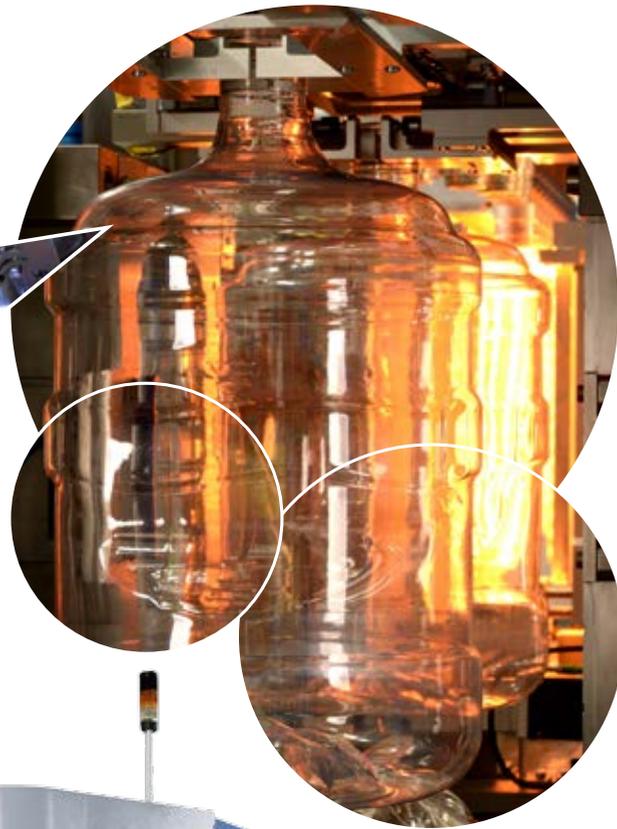
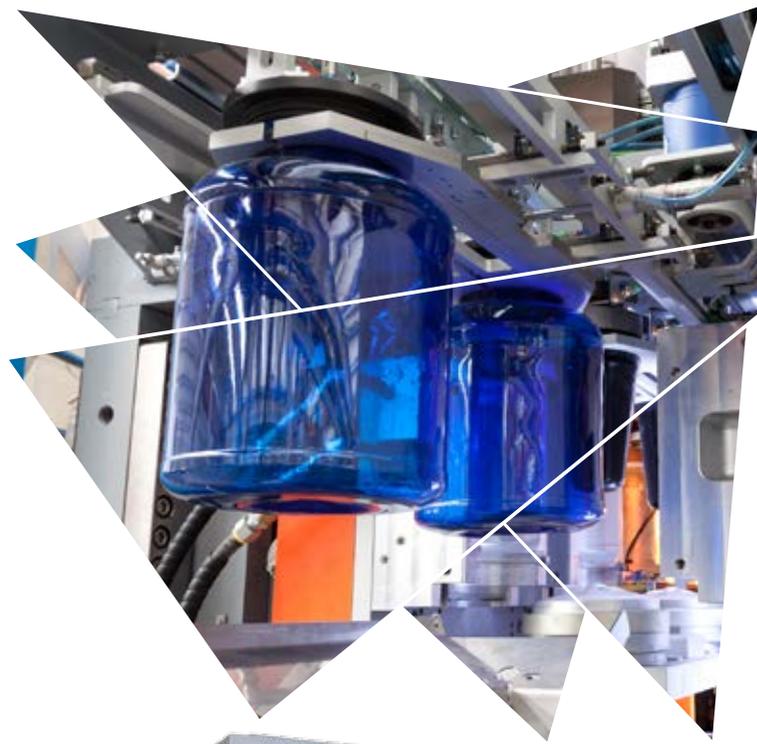


lity to produce bottles with high aesthetic qualities. This is due in large part to the fact that preforms are kept separate from one another throughout the process, eliminating any chance of their surfaces being damaged as they touch each other. Any rub marks or scratches on preforms are often very easy to see in the blown bottles. “Scratches are simply not permitted in this sector,” says Pietro Marcati. “The image of the product depends on a perfect presentation.”

TWO-STAGE TECHNOLOGY IS VERSATILE TOO

For customers who prefer two-stage technology, SIPA also offers SFL linear stretch-blow molding units as well as XFORM injection molding systems. XFORM systems can be used to produce specialty preforms with narrow and wide necks (up to 120 mm diameter) that complement the characteristics of the SFL units, which themselves are capable of running with molds with as few as one cavity (for extra-large containers up to 30 litres) and as many as six (for containers up to 3 L or, with the SFL 6 XXL model, 6 L), for beverages, edible oils, and detergents.





SFL stretch-blow molding equipment is in operation at SIPA customers all around the world. Processors appreciate it for its wide processing window, its ease of use, its production stability, its energy efficiency, its low cost of maintenance, and its ability to produce a broad range of container types, including oval shapes and hot-fillables.

