

COMING TO GRIPS WITH HANDLES

PETWORK - GRIPS WITH HANDLES

PET provides excellent lightweighting solutions for all sorts of bottles and containers. The packages are not only attractive, they are also highly resistant to rough handling, knocks and falls.

Even so, with contents that are heavier and more voluminous, special attention needs to be given to the ease with which PET containers can be carried and how the contents can be poured out. Such considerations take on extra importance when we consider products that are more likely to be used by the elderly and infirm.

A simple round or square container with contents weighing hundreds or even thousands of grams can be difficult to pick up and hold in one hand, so some sort of feature to improve grip is more than desirable: it becomes essential.

But there is no single ideal solution. Both in terms of function and esthetics, container makers have various and diverse needs.

That is why SIPA provides several options to improve 'handleability' of medium-sized and large containers. These can be divided into four categories:

- A container designed with a built-in grip.
- A handle around the container neck.
- A separate handle that is attached to the body after the bottle is blown.
- A handle that is pre-loaded into the mold and bonds to the container during blowing.

● THE BUILT-IN SOLUTION

An interesting option for containers from 250 ml to two and three liters in volume is to incorporate a pinch grip, indented panels, or a slot, directly into the body. This is a solution that requires little or no extra investment in container blowing or downstream handling equipment, and which

does not affect the output of the production line, which can be linear or rotary.

Further step is to impress a deep shape in bottle, with an additional mold movement. This can be done on SFL machine. Gripping is improved, while output is reduced. Users of preforms with the new neck can cut down their PET consumption without compromising on container performance. In addition, no modifications are needed to existing preform handling equipment.

● ATTACHING THE HANDLE TO THE NECK

This is a simple and effective solution that is easy to incorporate into existing filling lines. The handle is injection molded in a separate operation (mostly likely by a third party) and attached around the neck of the container downstream. It does not affect the blowing operation at all, and so output, whether the blower is linear or rotary, remains unchanged. Some downstream investment is required, but the equipment necessary to attach the handle to the container after it has been filled is relatively low-cost.

HANDLE TO THE NECK



● ATTACHING A HANDLE TO THE BODY AFTER BLOWING

This solution also makes use of a separately molded handle. It makes the container easier to carry, and additionally facilitates pouring with one hand. It is suitable for a wide range of bottle designs. Once again, no special blowing equipment is required: all that is needed is a standard SFL unit, which can be equipped or retrofitted with a simple hydraulic unit that moves a special device (inside the mold) to create two slots: these areas will host the handle (that will be placed with a separate machine, down the line). This does affect output however, with limited speed reduction.

mold before the hot preform arrives. No additional downstream equipment is required though. Output is around half that of a system producing containers without handles.

● LOADING THE HANDLE INTO THE MOLD BEFORE BLOWING

This is a solution that produces a very robust product, since the handle is more firmly attached to the container body. It does require a modified SFL blowing unit that provides a special thermal treatment of the preform before it is blown, as well as a robot to place the handle (or more handles) inside the

HANDLE INTO THE MOLD



BUILT-IN

