

## INTERPACK 2011

### Not your grandfather's bag-in-box

Geared for industrial applications including paint, lubricants and chemicals, CDF Europe has introduced a novel twist on the bag-in-box concept into the European and US markets.

Traditional bag-in-box liners are pillow shaped, which are easy to manufacture but suffer drawbacks including potential cracking due to the flexing of the bag inside the dispenser. Licensed from Japanese firm Hosokawa Yoko, CDF has now launched the Cheertainer formfit liner across several countries covering a range of sizes from 5- to 25-litres. The revolutionary twist is that the liner is square-shaped, enabling it to fit inside the box more securely and dispense the product more efficiently.

"The square liner is more technical to produce as there are more webs involved," Joe Sullivan, president of CDF Corporation (based in Massachusetts, USA), told *Plastics in Packaging*. "It is value-added and fills and dispenses much easier."

By fitting neatly within the dimensions of the square container, the liner collapses in a uniform way, which facilitates a controlled flow of liquid and less wrinkling, according to Sullivan.



*Not such a crazy idea from 4PACK*

tomter (TPE), which provides temperature resistance superior to silicon," said Schlesinger.

In the plastics version, a PET can features a PP dome due to the resin's flexibility. By softly pressing a finger into the centre of the cap the valve is lowered and the container is degassed (in the case of beverages containing carbon dioxide). By pressing the finger harder on the cap the closure opens completely. The cap stays fixed in the open position by means of a snapping mechanism, and stays connected to the container. Through the resulting gap, the beverage can be poured from the container (and of course, consumed).

Afterwards, by pressing two fingers on the edge of the opened cap the container is closed again, with a plopping sound. The valve returns to its original position to prevent gas or liquid from escaping.

A polyethylene / nylon / polyethylene structure is standard, but EVOH can be utilised if an oxygen barrier is required, while aluminium can provide a moisture and gas barrier. It is UN-certified for liquids, claims CDF.

"Hosokawa is involved in the consumer market, while we are focused on the industrial sector with our origins in drum liners. Products like wine are too much of a commodity," said Sullivan.

Family-owned CDF was established in the US in 1971 and evolved from thermoforming liners for pails and cans into flexible packaging such as intermediate bulk container (IBC) liners nearly a decade ago. It acquired Switzerland's FlexiPack earlier this year having owned a minority share in the company for two years, renaming it CDF Europe.

"The Cheertainer is the best of both worlds. It offers the environmental friendliness (carbon footprint and lower cost) of flexible packaging but the performance of rigid packaging. We've been doing 1,000-litres for a decade but now we're targeting the 5-to-25 litre range."

CDF also acts as the European distributor for CDF IBC products.

"We are starting with low to medium rates of production, around the 850 containers an hour range," explained Schlesinger. "A six-head ultrasonic machine is the biggest line we will do with Lanico."

Having started with water, carbonated soft drinks, beer and juices, the CrazyCan has set its sights on a wide range of potential applications.

### Launch for dry aseptic filler

Italian filling equipment supplier GEA Procomac launched its first dry aseptic blow-fill solution at Interpack, following in the footsteps of Sidel's Predis technology.

The ABF system sterilises preforms with hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) before blowing them with sterile air. "This system minimises the use of chemicals, requires no bottle rinsing, enables a simpler and smaller layout and reduces energy consumption," explains Silvia Armanetti, marketing manager at GEA Procomac.

The company has integrated Airstar technology into the filling system, which it claims is the first sterile and aseptic blow-moulder. "Airstar was designed by GEA Procomac to have aseptic sterility as a core concept from the beginning," adds Armanetti. "The system is made using materials that are compatible with chemicals for cleaning and sterilisation cycles.

"The designers also took great care to minimise any possible risk of contamination during blow-moulding and bottle transfers."

According to the company, a key feature of the system is to blow preforms upside down,



*Being square delivers a fair result*

The filling systems, which can be manual, semi-automatic or fully-automatic, are supplied by various manufacturers, including Bristol, UK-based FlexiFill. At 180 bags a minute, the speed is comparable to pillows, and so offers another form of differentiation if companies want to move away from rigid pails, bottles and jerricans.

"The smart-seal technology differentiates us, as we have sophisticated quality controls in place, monitoring the heat, time and pressure of every seal on every liner we manufacture. This sets us apart."

The only challenge CDF has to overcome is convincing companies that are having success with their existing technology to make a change.

"Those who are afraid of change are our only stumbling block, but we are convinced that they will see the benefits in this system."



*Taking on Sidel's Predis system*

enabling all non-cleanable components to be located outside the sterile zone. Electrical components are located above the sterile zone, while the mechanical parts of the system that require lubrication are located below the sterile zone. All surfaces in the sterile zone are accessible and are very easy to clean, the company claims.

"ABF uses GEA Procomac's Fillstar volumetric electronic filler fitted with magnetic flowmeters," notes Armanetti. "The bottles are neck handled throughout filling and capping, and the system fills any beverage, including products with pulps, fibres or fruit pieces."

### Easy access aseptic filler-capper

Aseptic technology was also the theme at Serac's booth, with the French filling equipment manufacturer showcasing its recently-launched FC