

Pouches pack a punch

cost and environmental potential

Paul Gander looks at the strengths of an underrated format.

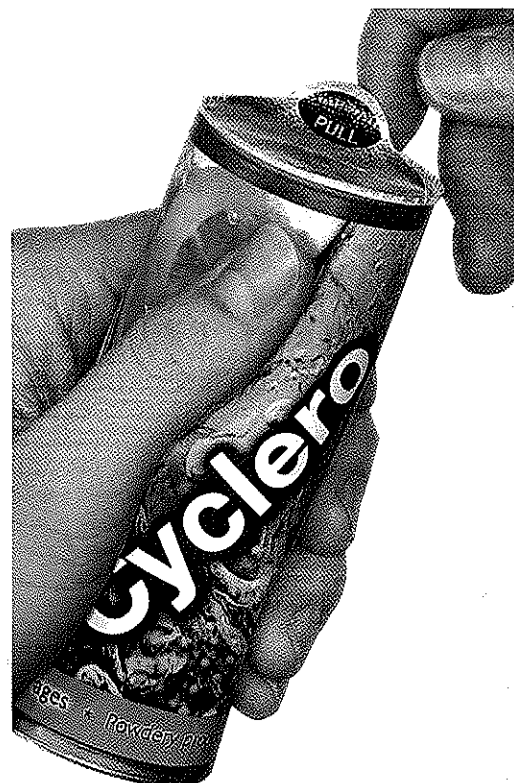
This year, children's juice brand Capri Sun celebrates its fortieth birthday. In an era when less fortunate products measure their lives in months rather than years, that is a notable achievement in its own right.

But it is also a victory (some might say against all the odds) for the brand-owner's chosen packaging format, the pouch. After all, the name is identified internationally with the pouch-and-straw combination. To a great extent, that is its brand identity.

So why 'against all the odds'? Well, while kids love it, any mum will tell you that the pack does not score highly in terms of consumer convenience. In fact, it could be that very potential for messy outcomes which appeals to children. As Matthias Becker, Sales Director at machinery company Laudenberg puts it: "Decades ago, it was a big thing. Today, no one would design a pack that way." He adds (although not in quite such polite terms): "From the point of view of opening, it's complete rubbish."

Responsible for Capri Sun's pouch-filling equipment is Rudolf Wild sister company Indag. In 1972, responding to the trouble Wild was having with systems from another manufacturer, Indag undertook to develop its own technology. From those 10,000pph machines, the company has progressed to today's high-speed 30,000pph lines.

Today, the Capri Sun company has 18 production sites around the world, and license partnerships with some of the largest brand-owners, from Coca-Cola Enterprises in the UK and Lotte in China to Kraft Foods in North America.



Indag has introduced a new generation of machines capable of filling shaped and spouted pouches. This capability has allowed Capri Sun to diversify. In addition to the square-shouldered 200ml pouch for children in the 6-to-12 age range, the brand-owner has introduced a 330ml profiled pouch for thirstier 12-to-18-year-olds. This has a built-in spout instead of the infamous Capri Sun straw, and is even reclosable.

Growing acceptance

In Germany, the Wild group is also now producing Caps, an isotonic sports drink containing "nothing but natural ingredients". German partner Angel is manufacturing and marketing an energy drink with the same name. Angel, too, is presented in a pouch, and marketed on the basis of its natural ingredients.

Other more international sports drink brands filled into pouches include Lucozade. As part of its packaging mix, GlaxoSmithkline's product still uses spouted packs formed on machinery from Italian manufacturer Gualapack.

Mike Carroll, Market Director for beverages at materials supplier Amcor Flexibles, points to some other, smaller-scale brands using pouches. In the UK, RDA Organic has rigid plastics for its adult drinks, but has put its Sqquishy and Squeeezy kids drinks into flexibles.

In Macedonia, Vivaks offers pouches alongside other materials such as cartons, and Gulf Union in Saudi Arabia has a similar multi-format strategy. Dolphin Water in the Netherlands has its 250ml SmartPack pouch, which applies Amcor's AquaflexCan technology.

So internationally, why are there not more soft drinks marketed in the pouch format? Carroll spells it out: "Overall, we feel that there is a consumer perception as to what is acceptable. The move to pouches goes against what is deemed to be 'normal'. However, while we see progress to be slow, we do see the status quo being challenged

on a more regular basis as companies begin to recognise the benefits of flexibles." He adds: "As more examples enter the market, consumer education and acceptance will increase."

Historically, the North American market has been no less resistant to the pouch format than Europe. Canadian company Eco-Container, established just two years ago, is using Gualapack technology sourced through Cheer Pack North America. Here, the presence of Cheer Pack as an intermediary and service partner is invaluable, says Eco-Container President Stephen Fairfield.

But to date, the company has focused on filling an apple sauce product for US-based fruit corporation Dole. "We've looked at the technology for still drinks and energy drinks, and a number of people around North America are interested," reports Fairfield. What is holding people back, he says, are questions of cost.

Eco-Container helps to reduce those costs by sourcing its materials from Hosokawa Yoko, headquartered in Japan but with production in China, says Fairfield.

Regarding barriers to take-up, he also cites issues of logistics and merchandising. "How do you ship it to retailers and display it?" he asks. Just as has been done with other flexible formats for food, the company says it has even looked at merchandisers which hang the spouted pouch from its neck.

Eco-friendly and economical?

As the company's name suggests, Eco-Container makes much of the pouch's environmental credentials. So how do these stack up? Lifecycle analysis carried out for the alcoholic drinks sector suggests that, even disregarding recycling, and even where laminates go to landfill, weight and energy criteria mean that their overall impact is much less than glass, in particular.

Fairfield raises the question of cost, and there is no simple formula here for comparing the pouch with other formats. "When you're just looking at material costs, there's a big benefit," says Amcor's Carroll. This is likely to be the case, even allowing for some more complex laminates and convenience features such as spouts. He adds: "But we try not to lose sight of the fact that there's a total cost."

While the costs of producing and filling polyethylene terephthalate (PET) bottles, for instance, can be made cost-effective at different output ranges, the same is not necessarily the case for pouches. Once a brand-owner such as Capri Sun has built up high volumes over time with a

bespoke line, says Carroll, there is a cost benefit. The same is true for the low volumes associated with new launches and smaller-scale trials. "It is the middle ground between the two which is always an issue with pouches," he explains.

Like Eco-Container, Becker at Laudenberg says that his company has applied its continuous motion 500ppm LCM pouch machine to apple sauce. (There seems to be something about pouches and apple sauce!). As yet, there are no applications in soft drinks, he says, but there is no reason why there should not be. Pouches could be fitted with spouts and screw tops, he adds.

Laudenberg worked with materials company Huhtamaki on the first generation of machinery for its Cyclero pouch concept. The prototype machine manages an output of just 30-40ppm, says Global Director for Cyclero, Gerhard Hartmann. This is being used by German company Foodvertising for short-run, promotional packaging.

New developments

Huhtamaki says it is working with a new (as yet unnamed) machinery partner on a second-generation system. This will take speeds up to the 200ppm range, reports Hartmann. The Cyclero pouches produced will be in a 'can'-style pack, in the 200-250ml size range.

Other pouch machinery options include the BMK range from Spanish manufacturer Bossar. This forms pouches from the reel, and will produce a range of styles including doypacks and spouted pouches.

After two years of development, Bossar recently added the Aseptis A300 to its range, offering cold aseptic pouch filling for sensitive products. The A300 uses hydrogen peroxide sterilisation and can achieve outputs of up to 150ppm on the triple valve version.

As Carroll at Amcor explains, one of the key challenges for system suppliers is guaranteeing seal integrity at high speeds. Especially where pouches are formed from the reel, longer dwell times for sealing inevitably slow the line down.

Those challenges regarding seal integrity for still drinks are as nothing compared with the obstacles to filling carbonated beverages into flexibles. And as unlikely as it may seem, Amcor says it is even looking at options for partially carbonated drinks.

So perhaps in only a few years' time, consumers and brand-owners alike will look at pouches and see something other than Capri Sun – and apple sauce, of course. ■

As Capri Sun celebrates its 40th anniversary, perhaps so too the pouch is coming of age.



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The recently introduced Aseptis A300, cold aseptic pouch filling system from Spanish-based Bossar can achieve outputs of 150ppm.

