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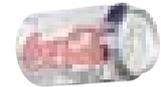
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BOWL SHAPE GIVES STEEL CANS A NEW FACE



BOWL SHAPE GIVES STEEL CANS A NEW FACE

Numerous social and demographic factors such as the ageing population, the increase in single-person households and busier lifestyles are having a fundamental impact on eating habits and thus on packaging needs. In particular, the importance of convenience and the increased use of ready meals has led to a demand for packaging solutions which protect and preserve the content well and allow it to be readily and easily consumed directly from the pack, anywhere and any time. This underlying trend has made bowl shaped cans with easy open ends more and more appealing to consumers. In certain market segments, this modern steel packaging format has even helped brand owners achieve double-digit growth in sales. At the same time, bowl shaped cans also contribute to significantly changing the consumer's perception of the traditional can, giving an image of freshness, convenience and modernity.

The bowl breakthrough gains momentum

Can makers Impress and Crown have been particularly active for several years in bowl-shaped cans and have been developing a range of can shapes and closures for various customers.

The bowl concept saw its debut years ago in France for salads but since then an increasing variety of different products including complete meat and fish-based ready meals have been introduced by brand owners and retailers in bowl-shaped cans on the French market, among which Saupiquet, William Saurin, Capitaine Cook, Monoprix, and Champion. More and more brand owners in other European countries are following this example and introducing new convenience food products in bowl-shaped cans on the market : in Germany, Rehm and Yano, in Romania the company Scandia Romana with the Paté Sibiu brand, and in the United States fish-based ready meals under the brand name Bumble Bee.

Crown Food Europe Marketing Manager Steve Thomas explained how bowl-shaped cans respond to modern consumer demands. 'Research indicates that whilst busy consumers always want value for money in packaged food, they are also increasingly looking for quick and healthy options which they perceive as modern, convenient and easy to open in and out of the home. Bowl-shaped metal cans seem to neatly fit with this modern lifestyle. Apart from looking less like a traditional can shape, they are better and more functional for single portion sizes and with the



new peel seam closures, they are easier and safer to open than lots of alternative packaging solutions. This is why we are expanding our range.'

William Saurin have introduced their product line 'Salades Gourmandes' in bowls by Crown, featuring Peel Seam™ peelable lids. This enables consumers to enjoy a tasty meal with a new level of ease, as the lightweight, durable package can easily be carried in a handbag, briefcase or lunch box without spilling. Consumers can enjoy the salad straight from the bowl.





“
Our salads in bowl shaped cans have proved very successful; every year we see a double-digit growth in sales, far beyond the normal trend in the shelf-stable salads in cans. Apparently these quality products in such a premium package are appealing to consumers more and more.
 ”

Christophe Bontemps,
 Capitaine Cook.



“For consumers a bowl is a modern shape”

Capitaine Cook is a 100 % subsidiary of the French retail group Intermarché. Capitaine Cook has a canning plant in Plozévet (Brittany) where the company produces sardine, mackerel and tuna based products including salads, mainly in standard 2-piece steel cans. Christophe Bontemps is Plant Manager there and since 2002 has been involved in the production of salads in bowl-shaped cans in his plant. Crown-France is the main can supplier for the company.

Christophe Bontemps explained : ‘In fact we started in 2002 under the Capitaine Cook brand name but following the repositioning of our brands, we have now launched this range of salads under the brands Odyssee and Capitaine Fracasse. Our salads in bowl shaped cans have proved very successful; every year we see a double-digit growth in sales, far beyond the normal trend in the shelf-stable salads in cans. Apparently these quality products in such a premium package are appealing to consumers more and more’.

And what was the reason for the introduction of bowl-shaped cans four years ago? ‘We simply found out that consumers perceive the bowl shapes as more modern and trendy than the traditional can shape, and consequently the product within is also perceived as modern,’ Christophe Bontemps continued. ‘In fact it is a ready meal; the product contains tuna, vegetables and some sauce and the variation in flavours is almost infinite. So the combination of a new shape and new contents makes for a really innovative and original product. Also the way the consumer

eats the product is new ; he or she can enjoy the salad directly from the bowl, either ‘on-the-go’ or at work at his desk for example.

This trend often applies to younger consumers who also find eating directly from the bowl no problem at all. Convenience is the key word for this new category of consumers.

So for us it is quite clear: this can shape and the convenience it offers is a real plus for the marketing of a similar new product and certainly deserves its slightly higher price. We all share this feeling in our company’.



For the Odyssee product range, a peelable Crown Peel Seam™ closure is used.

BOWL SHAPE GIVES STEEL CANS A NEW FACE



Capitaine Cook has an impressive range of flavours in its salad bowls like “Salade Parisienne”, “Salade Mexicaine”, “Salade Piémontaise”, “Salade Niçoise” and many more. For the Odyssee product range, Capitaine Cook uses peelable Peel Seam™ closures, but for its Capitaine Fracasse range the company uses regular steel easy open ends.

Christophe Bontemps: ‘We produce the Capitaine Fracasse brand for the Netto discount chain and therefore our final product price has to be very competitive. For this reason we opted for the easy open end rather than the easy peel solution for this particular product. In this context I have to

add when we use Peel Seam™ closures on the bowls, the retort process is quite critical with regard to the pressure control during the total process cycle. You really have to master the pressure and counter pressure, otherwise you easily risk deformation of the closure. Our supplier Crown has been very helpful in the introduction of this new package with regard to the delicate seaming and the retorting process. Of course it helps that we have been working together for many years and that Crown is located in Concarneau, not far from our plant. We are delighted that we have opted for this can innovation as it has proved very successful’.

Bowl-shape cans fit in the spirit of the times

On the subject of bowl-shape cans, APEAL also went to the Impress R & D Centre in Crosnières, France to meet Philippe Gimenez, R & D Director, and Doreen Decker, responsible for Strategic Development Marketing, who were both positive about the success of shaped cans, and particularly bowl-shaped cans.

Consumer research

Doreen Decker: ‘Our consumer research reveals that consumer convenience and the modern image of the bowl-shaped can are important issues. The ease of opening of the Easy Peel® end on bowl shaped cans has become particularly important in a context where an increasingly large part of the population is composed of very senior people.

We also found that the large type-face on the bowl also plays a role in consumer convenience. Most of the products in the new bowls constitute complete ready meals providing time-saving solutions for the time-pressured consumer. Bowl-shaped cans also respond to the needs engendered by smaller household units, as well as people ‘on-the-go’ for business or for leisure, who have no objection to eating directly from the bowl. A spoon or so-called ‘spork’, a combination of a spoon and a fork, is packed under the plastic overcap on the bowl. These premium products are targeted at single person households and consumers who are prepared to pay the slightly higher prices. It also means that these consumer groups are demanding in

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Christophe Bontemps, Capitaine Cook, and Steve Thomas, Crown Food Europe.





Pate Sibiu : bowl shaped steel packaging developed by Impress for launch in the Romanian market.



terms of packaging quality as far as the total package design is concerned. They expect an attractively printed can, a printed Easy Peel closure and a well-designed and printed plastic overcap. With the huge progress in can printing and aluminium foil printing we are perfectly able to respond to these needs'.

Peel-off closures also have the advantage of creating a perception of freshness. Doreen Decker explained: 'It was interesting to discover that some consumers put bowls in the fridge when they come home from shopping. Apparently thanks to the peelable closures, the bowls are associated with fresh products that have to be chilled. This perception fits well with the consumer trend towards fresh, healthy, low-fat, low-sugar content products. Whereas people still believe that products in standard food cans contain a high level of preservatives, they simply assume food in bowls is fresh and preservative free. Of course, bowls containing retorted food

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And for brand owners as well as for the canmaking industry the major consequence of this boom in new products in bowls is the fact that it significantly helps to change the image of the traditional can into a new modern packaging.
 ”

Doreen Decker,
 Impress.

have all the traditional advantages of steel cans such as long shelf life, a high degree of food safety, perfect recyclability and so on.

And for brand owners as well as for the canmaking industry the major consequence of this boom in new products in bowls is the fact that it significantly helps to change the image of the traditional can into a new modern packaging.'

A broad variety of bowl-shaped steel cans readily available

Philippe Gimenez: 'With our so-called 'can body team' in our R & D Centre we undertake many studies on the different geometries of bowl-shaped cans. The DRD technology we use is in fact well-known but a lot of variations in shape are possible. And with the introduction of softer steels, the possibilities increase considerably. Some customers prefer shapes as round and feminine as possible, for example, but others like pre-made wrinkles or flutes in the bottom area of the can, to give the consumer a better grip.

Thanks to the range of shapes and closures available, there is certainly a huge potential for convenience products in steel bowl-shape cans in the future, particularly in the single-serve food market.



Doreen Decker and Philippe Gimenez of Impress.



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THE SEVEN KEYS TO SHELF DIFFERENTIATION IN STEEL



Today 70% of consumer purchasing decisions are made at the retail shelf. This is a surprising statistic and highlights just how important the role of packaging is in today's retail industry. However, packaging only has a small window of opportunity to make its impact – it must grab the consumer's interest almost immediately or it will be lost on the shelf. The best ways of doing this are through the package's material, colour, print quality, embossing or shaping, and due to the constant evolution of steel, can-making and coating technologies, steel packaging offers excellent shelf differentiation possibilities. These possibilities are outlined in an information fact-file compiled by the

European Steel for Packaging Industry as part of a sequenced information programme to brand owners, retailers and designers on the values of steel packaging in the Food segment. In this article we bring you extracts from the second information pack in the series – "Shelf Differentiation".

1. THE SECRET LANGUAGE OF COLOUR

Colour in package design, when effectively conceived and executed, should leverage the assets of brands and extend brand communication. Colour choice is increasingly critical in the branding of products, as branding is all about standing apart. The possibilities in colour and printing on steel packaging allow brand owners to achieve effective brand differentiation.

A recent survey by Landell Mills has demonstrated that there is a general trend towards higher quality packaging aesthetics and presentation. In particular, the survey

shows that there has been a decrease in the share of labelled cans for fruits and ready meals and a decrease in the share of unprinted cans packed in folding cartons for fish, with a corresponding increase in the share of direct printed cans.

Major changes have occurred in printing on steel over the past few years. The development of machines allowing multi-colour printing played a key role. Processes, varnishes and inks have been developed to enhance and vary the appearance of the steel pack. Printing technology has been enhanced to digitally print images with photographic quality on the pack. Moreover, the quality of the steel is key in achieving a higher print quality, the new multi-colour printing machines requiring an

homogenous steel surface from every steel coil.

The recent digitisation of the printing process represents a big step forward in print quality. The evolution of computer-based design and the ability to read this directly onto a printing plate has speeded up the design and printing process, also making the process more quality consistent. The digital revolution has enabled computer-to-plate (CTP) technology whereby digital images are transmitted directly from a computer to the printing plates. CTP is an important factor in transmitting the full brilliance of colours and in improving registration between the various colours in a design. If CTP is coupled with Hexachrome® process printing a much wider range of





colours can be printed in considerably higher print quality with improved contrast between colours.

It is now possible to print onto holographic steel substrates – an important feature that is already being used in the fight against counterfeiting of branded products in cans.

The development of new pigments, which change colour at different temperatures (Thermochromic effects), offer the ability to indicate fill levels, ready-to-serve, and even safety features.

Interference pigments - which change colour according to the viewing angle - combined with steel can shaping, offer some very striking effects.

2. STEEL GETTING INTO SHAPE

By using shaped packaging, everyday foods are made more interesting. Indeed all categories have the potential to captivate consumers' imaginations with new formats and variants.

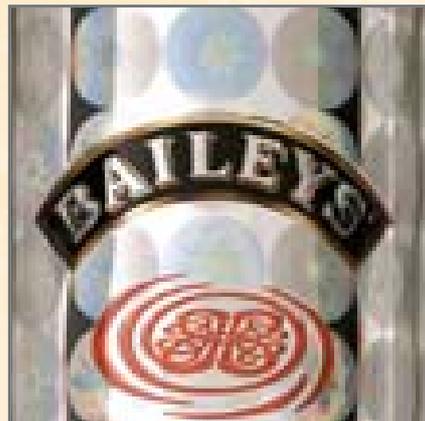
A variety of different shaping techniques are available for the shaping of steel packs, enabling many different shapes to be achieved - concave or convex, symmetrical or asymmetrical.

Mechanical shaping is the most frequently applied shaping technology with steel. An expanding tool in the shape of the can geometry opens and forms the can from the inside. The advantages of this process are the possibility of medium to low quantity series and low investment costs.

Blowforming is a process using air. It begins with a can preform placed in precision engineered moulds to create the desired shape. The preform is then blow-formed with

pressurised air, expanding the preform into the shape of the mould. During blow-forming, no tooling is required inside the can. Since only air touches the inner surface, the integrity of internal coatings and lacquers is ensured.

Hydroforming is an alternative process that uses water instead of air to force a steel tube into a required shape.



THE SEVEN KEYS TO SHELF DIFFERENTIATION IN STEEL

3. BREAKING NEW SHAPING BARRIERS

Fundamental improvements regarding the tensile strengths and the elongation characteristics of the latest steel grades are now opening up totally new perspectives in different areas. Recent, highly ductile steel has considerably increased the shaping potential of steel packs. It can be drawn into complex and traditionally difficult shapes in fewer production stages. Another benefit is that the finished product has a smooth surface with no wrinkles, allowing high quality printing and decoration. This development offers high impact potential and an extraordinary opportunity to brand owners to differentiate their products in the eyes of the consumer.

Ideally set for the European food packaging market, and particularly suitable for all types of food products, including pet food, this technique will no doubt favour the emergence of original formats, adapted to small production runs, and initiate the launch of a multitude of new products in steel packaging.



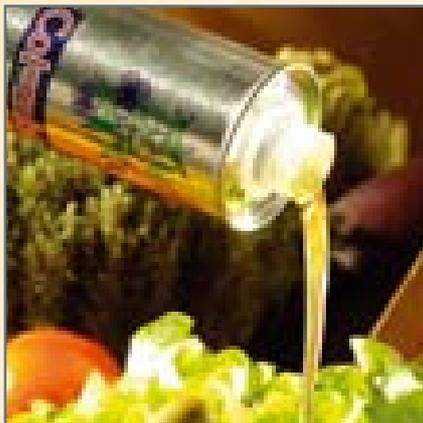
4. ENHANCING BRAND RECOGNITION & QUALITY THROUGH EMBOSSING

Embossing is a process which produces decorations with a raised profile. It offers a tactile experience and makes products more impressive with enhanced brand recognition. Contour-positive and contour-negative tools are harmonised for precise embossing.

The use of embossing on steel increases the spontaneous purchase incentive, as the unusual and attractive appearance, together with impressive designs, differentiates the product from competition resulting in a decisive advantage on the retail shelf. The additional advantage of such designs is that consumers often keep such packaging, extending the time the consumer is exposed to the brand.

5. REFLECTING AN IMAGE OF QUALITY THROUGH METAL FINISHES

The intrinsic bright, metallic appearance of steel has always been considered by designers and can-makers as a premium for creating original and appealing labels for cans. This metallic appearance in packaging creates an image of quality and distinction for the product packed and identity for the brand.





6. POLYMER COATED STEELS: COMBINING THE BEST OF 2 WORLDS

Interesting new opportunities arise from the use of polymer coated steels, which combine the best of steel and polymers. Polymer coated steels provide an excellent lever for shelf differentiation, being available in various colours and offering an exceptional surface on which to print.

The excellent scratch and scuff resistance of this packaging material constitutes improved barrier against rough handling and transport, securing the product appeal throughout the supply chain, all the way to the consumer.

In addition, developed for maximum aesthetic appeal and point-of-sale impact, polymers with holographic design offer brand managers and designers a highly creative and versatile medium for packaging consumer products. The illusion of movement creates shelf impact. It is very easy to combine brand graphics, embossing and printing to further enhance packaging design. As well as having aesthetic appeal, it is also an excellent anti-counterfeiting solution. New holographic designs can be created that take the form of corporate or brand logos, bringing further benefits in terms of product authentication.



7. ORIGINALITY GUARANTEED

To achieve the objective of differentiating the brand through packaging, whilst giving it a modern and trendy image, brands have unique packaging alternatives in steel at their disposal.

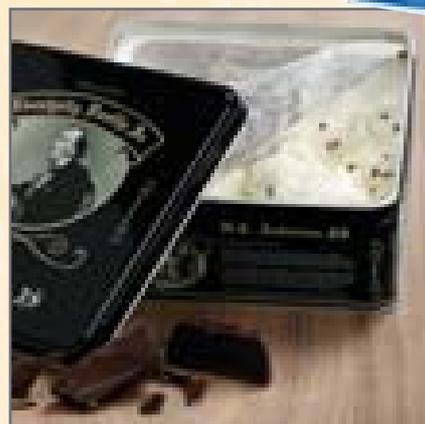
The unfamiliar use in the food segment of steel packaging solutions from other market sectors can have an important impact on the marketing of these products. It enables a food product to stand out on the retail shelves, providing it with a modern and trendy image.

Using the beverage pack format for various food products such as peanuts, chocolates, etc. confers a trendy image to the product, which can be easily distributed using vending machines.

Liquid foodstuffs such as oils, whipped cream and mousse can be conveniently packed in aerosol containers and offer added convenience. This packaging format provides additional differentiation on the retail shelf to tempt the consumer.

Together, can makers, steel producers and designers are resolute about developing innovative solutions to support new product launches and to differentiate or reposition brands.

As a result, we can now find a wide variety of food products packed in unfamiliar steel containers.



This article is an extract from Pack 2 on shelf differentiation, taken from the information programme "Steel for Packaging: Trusted Experience, Value for the Future".

The complete document is downloadable at www.apeal.org

or a printed copy can be obtained by contacting APEAL.

Design solutions in Steel

ALPHA CENTAURI DESIGN: MULTIFORM SHAPED CANS FOR THE EXPANDING READY MEAL SEGMENT

One of the leading packaging design agencies in France has recently developed a range of steel concepts for the very promising ready meal segment. Tom McMurtry explores how and why the agency developed these innovative designs, which exploit the potential of ductile, easily shaped packaging steels.

Designers Patrice Galimand, Florence Galimand and Pierre Lucas founded Alpha Centauri Design in 1996, today one of the leading packaging design innovators in France. Their previous creative expertise was well



known within the packaging industry, as they were the pillars of design at the Allen Carré Agency, one of the first designers to introduce the shaped steel can in a lengthy campaign to change the image of the traditional three-piece steel can.

Alpha Centauri offers a total concept from creation to production using their competence and knowledge of current consumption trends in the food, beverage, industrial and cosmetics

sector, as well as their experience in developing their original packaging solutions for the merchandising and corporate identity of major brand leaders on the international market.

High distortion steel to pack ready meals

The agency has recently worked with Impress and Arcelor to produce a number of original designs using Arcelor's newly launched Creasteel, a high distortion, deep drawing quality steel which permits the production of multiform drawn cans. Although Alpha Centauri Design's vision and expertise was mainly with plastics for the creation of unique shaped containers, they had found a new potential for innovative packaging solutions using this highly flexible steel. These

new containers, being progressed to prototype, are suitable for precooked foods and are designed for reheating using various household ovens. Indeed, this fashionable single serve market, which is today dominated by plastic containers, is expanding rapidly with growth rates currently exceeding double digit figures.





Critical issues for success

When discussing the various Alpha Centauri projects with Florence Galimand, she stressed that although they had the capability of producing three dimensional concepts and were in contact on a regular basis with the major European retailers, it was this exclusive collaboration with Impress and Arcelor which through the ongoing exchange of each individual partner's competence and expertise,

has resulted in the creation of shaped packaging solutions suitable for ready meals and snacks.

"It is vital that during the conception of a packaging solution", Laurent del Bianco, Creative Director for Alpha Centauri emphasized, "that each phase of the distribution process is considered by the designer, up to the presentation at the point-of sale, the final consumption by the consumer and very crucial for Alpha Centauri, the impact of the packaging on our environment. It is exactly in this frame of mind", he continued, "that we developed a new standard of steel tray for snacks and single serve meals." To enable Alpha Centauri to do this there must be an extremely close working relationship between steel producer, can maker, brand owner and distributor to ensure that a maximum of parameters are met with the new design. The manufacturing feasibility, cost effectiveness, transportation, filling and distribution, presentation on the shelf, convenience of use, and ensuring that the product is consumer and environmentally friendly are all critical issues for success.

Reducing the impact of packaging on our environment

"We at Alpha Centauri", Florence Galimand added, "are also committed to reducing the impact of packaging on our environment by avoiding the use of multi-material concepts to permit trouble free collection and separation prior to recycling." Brand owners and consumers alike are constantly aware of the need for innovative packaging which minimizes waste and is used in an environmentally sensitive manner. Environmental acceptance is today seen as an added value by society. And steel has a strong card to play in this field!



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Steel Packaging Gallery



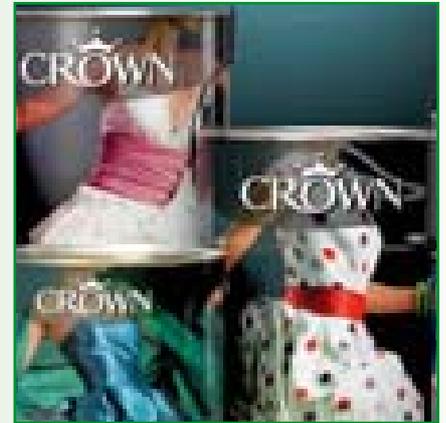
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NEW PAINT RANGE FOR AKZO NOBEL



Original and visually powerful designs were created by Mountain Design in the Netherlands for a new paint range for Akzo Nobel using a standard 4 colour set. A spot matt varnish is used on the Crown logo and the textile effect back panel and the stylish look is completed with a black handle. Matt Sykes, Impress Account Manager commented, "With the vast majority of water based paints packaged in plastic, this new range sends a powerful message to the market. It suggests that customers see metal as the preferred choice for their premium product launches due to its superior print qualities and unrivalled pack performance." The range of cans won two prizes at the recent MPMA Best in Metal Awards in the UK in the Consumer Appeal and the Homecare & Industrial categories.



CHIVAS REGAL



Chivas Regal 12 Year Old Premium Whisky has unveiled a new gift pack aimed at boosting sales during the crucial pre-Christmas and New Year period. The pack was designed by Creative Leap and produced by Crown Speciality Packaging. The innovative, modern shape, inspired by a cigar tube, is a combination of classic crafting with contemporary styling and distinguishes the product on the shelves.

RETRO CASE



The aim of the German based 'jm.packdesign' was to create a stylish and modern container suitable for packaging a variety of dry products. The decorative tin is colourful, attracts attention on the shelves, and lends a premium quality to the product. The container is smooth with a well fitting lid, and can be kept by the consumer for storage of other products after use. The tin has already been commercialized for the sale of tea. It is mainly used for coffee, tea, food (like sugar...), but can also be used for packaging of clothes.





WELEDA COSMETIC SET FOR MEN



Swiss company Andreas Kopp AG has developed an oval-shaped, slim secondary packaging for Weleda cosmetic products for men, embossed with the Weleda logo. The challenge was to develop an elegant and stylish packaging reflecting the premium quality of the product. All the edges are rolled inwards, to improve the elegant look of the packaging.

COLOMBO OLIVE OIL



Italian canmaker ASA San Marino has developed 'Colombo', a customized 3-piece steel packaging for olive oil in the form of a bottle, available in 500ml, 750ml and 1 litre capacities. The Ø 65 mm body of the can is expanded in to a customized shape and can be printed all over. The body and the neck are made of steel, whilst the cap is a standard pilfer closure for glass bottles for edible oil. The steel packaging offers quality and safety benefits: it is an efficient barrier for light and oxygen, it guarantees that the organoleptic properties of the olive oil are maintained, and it is totally tamper-proof. Because of its lightness, Colombo offers a significant reduction in transport costs: it weighs almost 75% less than a glass bottle of the same capacity. Colombo can fit into existing filling lines for glass bottles. The only difference is that it is not breakable! It offers a considerable advantage in production efficiency due to the reduction of line downtime and can resolve the problem of dangerous glass fragments during packing.



Ceci n'est pas une bouteille.



FRUISS



An elegant pack from Routin, France, houses the company's "Fruiss Sans Sucre", low-sugar peach drink. The container resembles a large can with a plastic bottle-type head. The pack comprises a 500 ml three-piece steel litho printed canister. The top is capped with an injection-moulded flip-top cover, with a removable juice seal membrane.

INSPIRING STEEL PACKAGING SOLUTIONS

Would you like to know more about all these steel packaging solutions?

Please visit:

www.steelforpackaging.org

THE “ACTIVE” STEEL BEVERAGE CAN: A SMART CHOICE

During the last 20 years the major innovations in the beverage can making industry such as light-weighting, necking, improvement of printing possibilities, diversification in can sizes etc. have been vital in maintaining the competitive market position of the beverage can in the packaging world. These sophisticated technological developments however in most cases went more or less unnoticed by the majority of consumers except in the case of the convenience of the ‘easier’ easy open end, or for example other visible or tangible changes in the can design. And of course the key word is really ‘added value’ because that is how a brand owner can enhance his product, also by the package with the right features.



Emotional added value coming from beverage cans

Improvements in technical possibilities for beverage cans in the last few decades has opened up the huge potential of beverage cans for marketers at brand owners. The possibility of having photo print quality on beverage cans made them attractive for promotions, and laser-etching of the tabs enabled marketers to organize games around their brand. Steel producers together with can makers are able to supply ‘bright’ steel cans by improving existing manufacturing processes. Can makers can use a fluorescent varnish that gives a really radiant appearance when uv light or ‘black light’ shines on the can.

Another important tool for marketers became the use of embossing for beverage cans. Adding a tactile experience to the holding of a can certainly helps to leave a longer-lasting emotion with the consumer.

Steel producers together with can makers are able to supply ‘bright’ steel cans by improving existing manufacturing processes.



Functional added value

Today, the complexity of beverage packaging technology found in the local supermarkets embraces a multitude of technologies. The active beverage can communicates with the consumer. It informs the consumer about the temperature of the beverage or the can reacts to stimuli by cooling, heating or foaming the product. The active beverage can even enables various ingredients to be mixed in the can just before consumption. To make all this happen, active components that trigger a specific mechanism are required. Can makers, together with brand owners, developed a number of devices that trigger some mechanical or chemical process.



DRINKING TEMPERATURE MADE VISIBLE

A good example of intelligent features is the visibility of the temperature of the drink in a can. There is hardly a worse insult to the taste of a beer drinker than offering a lukewarm beer. To be sure that the consumer knows when the product has reached the desired consumption temperature, thermochromic inks can be used to print logos with a message, such as "drink now!" for example.

The thermochromic effect is achieved by adding some special pigments to the printing inks whose colours change as the temperature changes.



WIDGETS PRODUCE FOAMY CONSISTENCY

But probably the most impressive active feature available for beverage cans is the possible incorporation of widgets in beverage cans. Over the past few years there have been a multitude of designs and materials used for widgets to produce a smooth rich creamy consistency in canned beer comparable with traditional draft, until now considered the premium of brewed ales. Liquid nitrogen contained in the widget is released when the can is opened forming minute bubbles and turbulence together with the CO₂ forming soft mellow foam.

The success has been immediate and canned beer sales consequently boomed.

Widget technology was introduced to the 'new wave' drink market segment with the launching in the UK in 2002 of "Kenco ice cappio", a creamy coffee drink in a can. The technology is suitable for milk shakes, yoghurt and fruit flavored milk drinks and why not Irish coffee and pina colada.

“

The soft frothy texture of milk drinks, much appreciated by our young consumers, has always been difficult to reproduce when using conventional packaging concepts. The widget concept in cans has now made this possible and opens up a new marketing potential for mixed milk drinks, milk shakes, yoghurt drinks and coffees.

”

These dairy products are now being packed regularly in steel cans where widgets are used to produce a cappuccino and milkshake consistency.



THE “ACTIVE” STEEL BEVERAGE CAN: A SMART CHOICE



PRESERVING NATURAL ELEMENTS

The revolutionary Freshcan® concept uses the “Wedge” to separate liquids and solids, which are mixed just immediately prior to use. This process has made available the potential of using time and liquid sensitive ingredients such as vitamins and minerals associated with health and energy drinks, and opens up a new exciting approach to the consumption of nutritional supplements and a multitude of pharmaceutical products. The application for brand owners is not complicated: the “Wedge” is inserted by simple handling at the filling line and the pressure activation in the “Wedge” has been kept standard and thus very reliable. In the USA a number of brand owners already use the Freshcan® system for their functional drinks.

The new “wedge” technology adds another attribute to the versatility of the can. Beverages are enhanced with vitamins, trace elements or pro-biotic additives. A capsule - the “wedge” - floating in the liquid releases its dry and protected contents when the can is opened.



CANNING HOT AND COLD

In a society where consumption is increasingly 'on-the-go', the added convenience of self-heating and self-cooling beverage cans for today's busy consumer is incontestable. Both self-heating and self-cooling beverage cans are the subject of ongoing technical improvements to make them cheaper, more reliable and efficient in terms of heating and cooling performance, improvements which are necessary in order for them to achieve commercial status.

The technologies for heating and cooling are still the subject of intense research efforts. The Holy Grail of the metal packaging industry today is certainly the self-cooling beverage can. Patents are numerous worldwide and proprietary engineering can by the push of a button cool a can of beer from 20°C to almost 3°C in a matter of three minutes. Another example is the 'I C Can' developed as a result of a Tempra technology and Crown Holdings Partnership, which has been successfully evaluated. Using a natural desiccant contained within a vacuum draws heat through the evaporator into an insulated heat-sink, which significantly reduces the temperature of the beverage.

In contrast, the self-heating can has made its debut for coffee, soups and sake with a serious contender for baby foods. The process is simple: heating devices have been around a long time, just mix calcium oxide with water. Putting the chemistry in cans however needed some very cool engineering to heat a can of coffee to 60°C in a matter of minutes. It's not surprising that the concept has generated considerable interest from retailers in Europe, where despite global warming, a steaming hot cup of tea or coffee is still highly appreciated as well as the acclaimed ice cold Coke.

HIGH NUTRITIONAL VALUE PRESERVED

Sensitive products like milk drinks, coffee drinks, yoghurt drinks and so-called 'wellness' drinks keep their high nutritive value and superior taste better by a gentle heat treatment. So Aseptic treatment was developed for beverage cans. In this processing technology can and end are sterilized, the drink is heat-treated by a UHT process in a gentle way and these sterile components come together under aseptic conditions on the filling line. The final product is of first-class quality.



Please
take me home
and drink me!

Will the can speak out and sell your product?

Will future packaging concepts reach out to the consumer, using vocal or imagery techniques, and have your favorite pop star or soccer player say "Please take me home and drink me!" or "You'll feel much better after a real cool beer!"

These 'Smart' innovations in Steel packaging technologies which initiate a change to the functionality of the package are transforming brands, offering new benefits to the consumer, creating new opportunities and can help drive can growth in the future.

SUSTAINABILITY OF STEEL FOR PACKAGING FURTHER ENHANCED THROUGHOUT EUROPE

For the first time, recycling data gathered by APEAL covers 30 countries, namely the EU-25 as well as Romania, Bulgaria, Norway, Switzerland and Turkey and provides a full picture of the recycling performance of steel packaging.

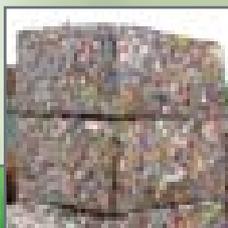


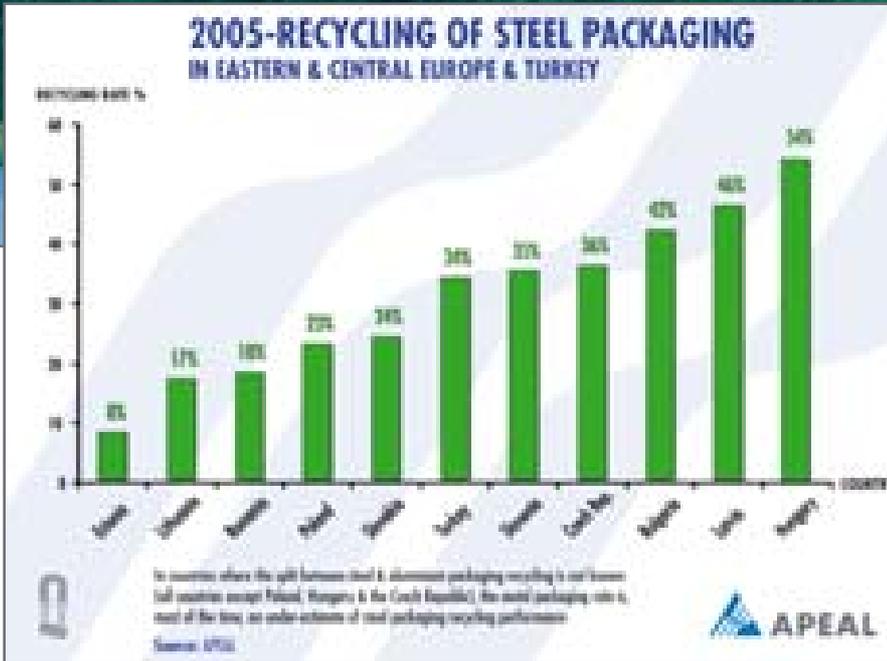
Over 2.3 million tonnes of steel packaging were recycled in Europe last year. This represents an average recycling rate of 63% in the EU-25, an increase of 6% in recycled tonnage compared to 2004.

Steel recycling rates rise throughout Europe

Growing recycling rates are being achieved throughout Europe with recycling rates reaching up to 92% in Belgium.

Remarkable progress in recycling was made in the Baltic States, Poland and Slovakia (from +37% in Slovakia to +120% in Lithuania). Other countries which improved their recycled tonnage include the UK & Denmark (between 10% and 15% increase), Spain, Finland and Italy (between 5% and 10% increase) as well as Austria, Ireland, Germany, Portugal, Switzerland and Hungary which increased their recycling performance by up to 5%. As far as Turkey is concerned, a recycling rate of 34% was achieved in 2005 for metal packaging, exceeding the 30% recycling target imposed by law.





Recycling contributes to the sustainable use of resources

Through increased recycling of steel packaging, resources such as iron ore and coal are preserved for future generations and energy use is vastly reduced. Over the last 10 years, more than 16 million tonnes of steel packaging have been recycled, saving 40 million tonnes of CO₂ emissions. This saved the equivalent CO₂ emissions of 22 million cars, each car travelling an average of 10,000 km per year.

A key factor contributing to these high recycling rates is the adaptability of steel to a variety of collection systems ranging from mixed household waste to multi-material, door-to-door collection. Such systems, which are generally integrated into the waste management system for a locality, are now commonplace in Europe and are rapidly being implemented in Eastern and Central Europe. Importantly, they have the advantage that they collect all types of household steel packaging

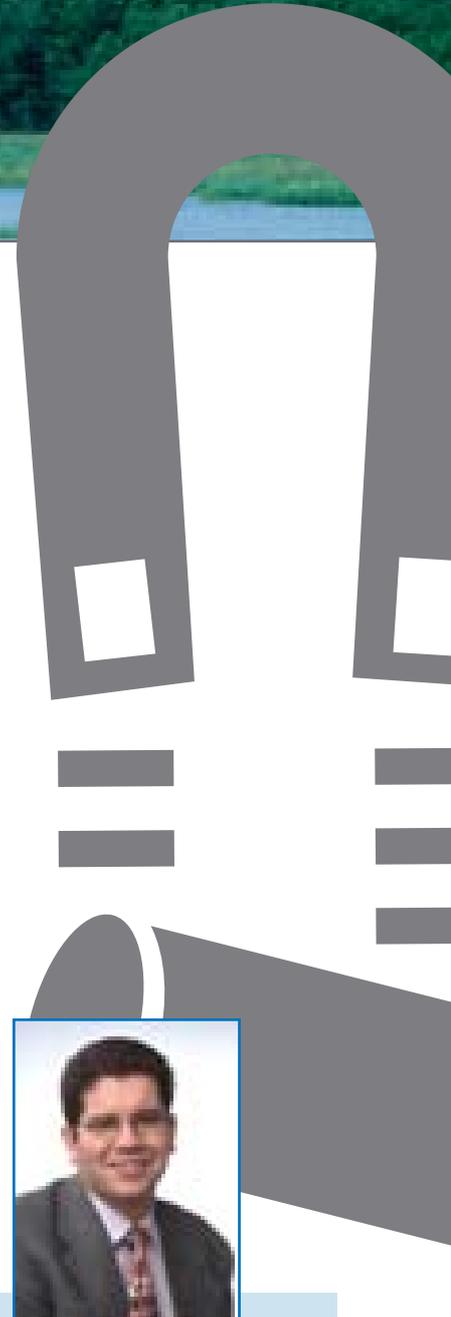


(food cans, drinks cans, aerosols, etc.), whereas some systems, notably deposit systems, are restricted to beverage containers.

Further development of recycling expected in Eastern & Central Europe

Further improvements in recycling can be expected in Central & Eastern Europe driven by the on-going development of the collection and recycling infrastructure as well as the phased EU recycling targets until 2015.

Philippe Wolper, Managing Director of APEAL, comments: 'Brand owners having opted for steel to package their goods have not only the assurance of an optimal protection of their products but also a packaging solution which is highly beneficial to society from a sustainability point of view. Indeed, the fact that steel packaging is increasingly recycled throughout Europe and therefore brings high value to our society constitutes a major contribution to increased sustainability'.



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CANNED FOOD: A RESPONSIBLE CHOICE IN TODAY'S CHALLENGE TOWARDS ENERGY EFFICIENCY

Climate change is recognized as one of the greatest environmental, social and economic threats facing the planet. In Europe, the EU institutions are at the forefront of efforts to shape the appropriate policies stimulating changes in human consumption patterns, since they recognize that fundamental actions have to be undertaken. At the same time, different economic actors are exploring ways to actively contribute to the reduction of global primary energy consumption. Within the packaging chain, retailers and brand owners are starting to implement different programmes aiming at increasing their sustainability profile.

Reducing environmental impact throughout the supply chain

The programmes under development are ambitious and set a number of goals which trace the path towards better sustainability for all. Indeed, retailers such as Wal-Mart are leading discussions on how, working closely with suppliers, academics, NGOs, politicians and other business leaders, they can stimulate change at all levels of the supply chain. Indeed, with more than 60,000 suppliers, they have a tremendous lever to stimulate them to improve their own environmental profiles by setting a number of clearly identified targets. These efforts,

coupled with the fulfilment of their own specific targets, should help to reduce their environmental impact. Once these results are achieved, communication on these achievements will become even more important, as over time it will increasingly become a marketing tool for differentiation.

For a free yet environmentally responsible choice

The food industry utilizes a supply chain that consumes energy at every step of moving products from field to table. Those steps include growing, harvesting, processing, packaging, transporting and storing. The challenge is to reduce the overall environmental impact throughout the supply chain, whilst at the same time meeting the consumer demands of quality, nutritional benefits and variety of choice. Indeed, if the choice was to be reduced to one single product, there would be no competition.

Without strong competition, no further progress will be made, also on the environmental grounds of energy consumption. Each of us has to become responsible for the choice we make as an economic actor but also as an environmentally responsible actor.



Canned food: an energy efficient solution to deliver food

In this context, canned food could well become not only a choice based on quality, convenience and affordability, but also a responsible choice based on environmental considerations.

Indeed, a US study conducted in 2005 by Scientific Certification Systems (SCS) of California comparatively assessed the energy consumption of refrigerated, frozen and canned food delivery systems, quantifying the energy requirements at every step of the supply chain looking at a range of packaging/processing combinations.

The following packaging/processing combinations were selected:

- Bulk refrigerated product (e.g. green beans, broccoli, asparagus) in coated cardboard
- Portion packaged refrigerated product in PS/PET pack (e.g. blueberries, raspberries)
- Frozen products in plastic LDPE bags (e.g. blueberries, green beans)
- Frozen products in coated liquid board (e.g. spinach, frozen ready meals)
- Canned ready meals, full content utilization (e.g. soup, ravioli, chilli, tomatoes)
- Canned goods with processing liquid (e.g. green beans, blueberries, chicken)

The study analysed the relative use of energy at each stage: growing, harvesting, processing, packaging, transporting, storing for wholesale

and retail distribution, without forgetting home storage and cooking. The study clearly demonstrated that canned food uses less energy than alternative solutions.

Why is canned food an energy efficient format of food delivery?

Food processing: Energy inputs for canning are significantly less than those reported for frozen goods

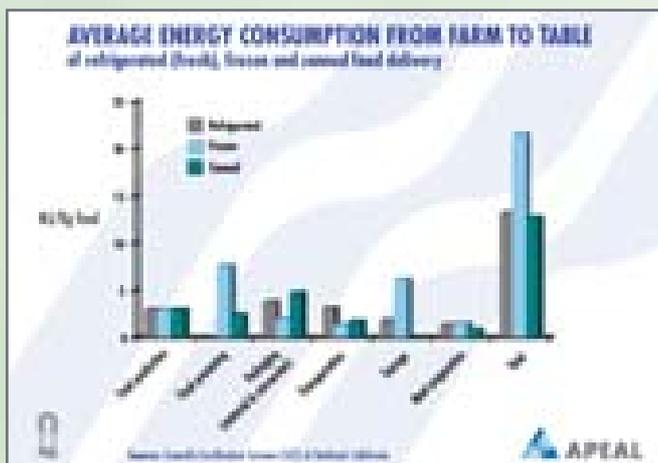
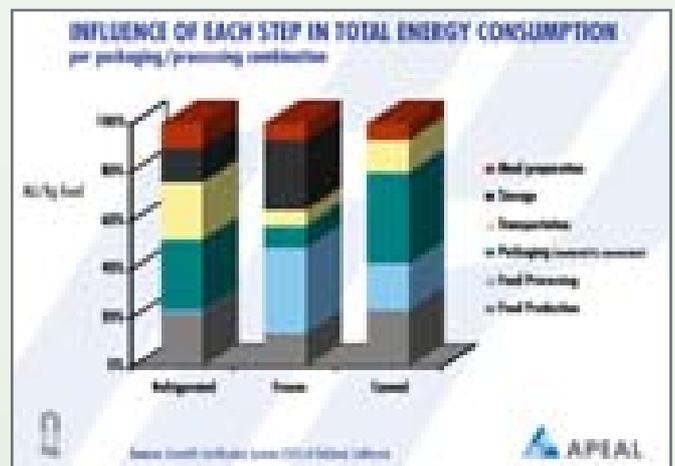
Transportation: due to its compact & stackable container design, it enables more food to be transported in a limited volume with less transport packaging

Storage: being stored at ambient temperature, it is totally independent of refrigeration

Meal preparation: being already cooked in the can, canned food requires less energy for preparation since it can be used with minimal reheating or consumed directly from the package without reheating (eg. Green beans in salad).

For refrigerated and frozen products, storage and transportation are stages that significantly contribute to the total energy consumption. For canned food, the production of packaging is the dominant contributor but this is more largely compensated by the fact that the can allows energy savings throughout the distribution chain, contributing to a positive balance. This result does not even take into account the energy savings made possible through the avoidance of food losses which would occur with less protective packaging.

Bill Heenan, President of the US Steel Recycling Institute, commented, 'The most efficient, convenient, and nutritional delivery system of food to a dinner table is brought to the consumer through steel cans. Now we know that in addition to being the most recycled food package, cans are also a way for us to reduce greenhouse gases'.



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Interview with an expert

FABRICE PELTIER

THE CAN: THE FUTURE PACKAGING SOLUTION

“**T**he fundamental packaging innovations were established during the 19th century, and it was throughout the 20th century that the optimisation of these concepts was achieved. We are now in a period of transformation of these packaging solutions to make them more ecologic and sustainable”, stressed Fabrice Peltier during the presentation of his publication ‘La boîte : solution d’avenir’ (Pyramyd ntcv) at ‘Emballage’ the French international packaging show. The book was compiled and edited together with Rachelle Lemoine, Eric Delon and with the participation of Uppia (the French Association for the Promotion of Processed Foods).



Authentic packaging

“The metal can is the authentic packaging medium which has permitted the conservation of food, culinary traditions and their exchange from north to south, and from east to west.

Metal packaging can be basic and functional or extravagant and luxurious enough to attract the attention of the well-known designer Jean Paul Gaultier. It preserves natural flavours, in time, it offers maximum security and is probably the most secure packaging available today with the longest conservation time, which prevents wastage particularly in developing countries, which do not have the resources for refrigeration. The mobility of the can has made it the packaging of adventurers and it offers culinary pleasure under the most extreme conditions on earth and even in space for astronauts. The can is ecologic, easily collected by magnetic separation and perfectly recyclable.”

Common universal values

During an interview with APEAL after the presentation, Fabrice insisted on the fact that the steel packaging industry should focus on developing a communication strategy to inform the brand owners and consumers that the steel can is the most viable means of packaging for food and beverage that exists but that the quality which is integrally preserved is only as good as the product which is initially packed. He said, “Rather than focus on differences, we should emphasize our common universal values.”

“

It is vital that we consider packaging not only in tons and cans per minute but as projects, which will offer added value to the product, packed

”

Fabrice Peltier
P'Référence



Filling the gap

The exceptional strength of steel packaging guarantees security and protection of the product, whilst being easily accessible by the flick of a finger.

Today, consumers are fully aware of the importance of ecology and the urgency to preserve our resources by less wastage and their recyclability. Metal has a value, which merits its economy and conservation and is, in fact, 100% recyclable.

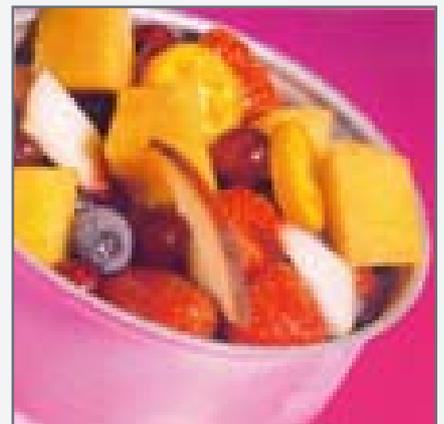
The consumers perception of the can as a rather low cost choice needs to change through the introduction of innovative shapes and decoration. This, together with a selection of opening devices to make the can an exceptional packaging, will capture the consumers esteem as a quality preference.

The can's visibility through design and a combination of high calibre food and beverage will influence consumer perception and dissociate the industrial process with the quality of the product packed.

"The key today", he said, "to ultimate convenience, is the microwavability of processed food cans and single serve portions which seems now to be feasible, using standard steel or the latest co-extruded steel coatings, recently introduced on the market."

"Are we capable of producing a food can with its own identity, which is avant-garde, appreciated by collectors and packed specifically to correspond to a trend or a precise moment in time?" Fabrice said: "Imagine", he continued, "if we design cans corresponding to the season, the hour of the day, a particular place, a major event."

"It is vital that we consider packaging not only in tons and cans per minute but as projects, which will offer added value to the product, packed. These 'niche' markets and their unique designs can have a crucial impact in the market, and change the overall image of the steel can."



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Interview with an expert



FABRICE PELTIER THE CAN: THE FUTURE PACKAGING SOLUTION

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A proactive approach

“The future needs of the designer”, Fabrice remarked, “to successfully accomplish a steel packaging concept, is to react, within a very short time frame, to our customers requests or a specific market situation with a feasibility study. With an increasing variety of shapes and forms available, it has become more difficult to provide a rapid and realistic estimation of manufacturing costs based on a three dimensional graphic image. We need to address this matter urgently, with a programme to calculate approximate costs, taking in consideration the type of manufacturing technique used, the printed design and the quantities required. “



“Cans need to adapt to the consumer’s frame of mind, at a particular place or a particular time. It has to be an intimate and personal experience and the customer will pay the price if he gets a sophisticated product for a unique happening”, Fabrice stressed. “The new steel qualities available offer a considerable potential for design and with a close cooperation between designer and manufacturer the consumer’s perception could only favour the choice of steel for packaging in the future.”

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