
LIQUID PACKAGING GUIDE

Packing liquids in flexible pouches. New areas of application, shortened packaging processes and sustainable benefits along the entire process chain.

Index

Introduction	
Replacing cans, buckets and glass – new ways to pack liquids	03
Rigid versus flexible packaging	05
Flexible packaging for food service products	07
Possible packaged goods	07
Technical methods	08
Packaging materials	09
Internal processes	10
Vertical Form, Fill and Seal Machines (VFFS)	11
Sustainability	12
Conclusion	15
Customer benefits	16
- Processors/manufacturers	17
- Distributors	20
- Food Service	21

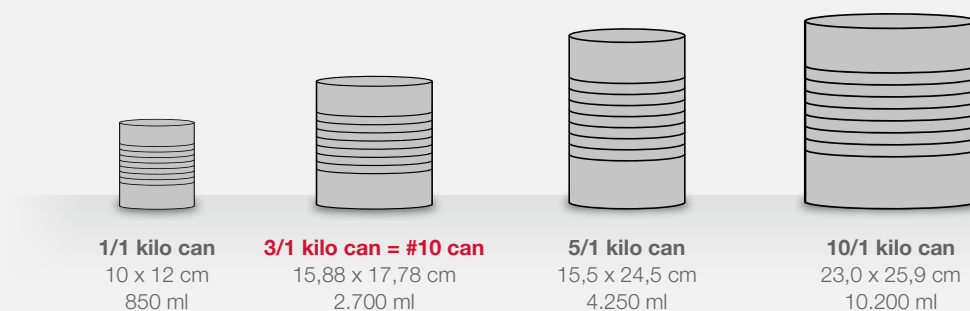
Glossary

The European equivalent of the #10 can is the original can, also called 1/1 can or kilo can. All other European standard sizes are parts or multiples of the 1/1 can. Common Food Service sizes are 3/1, 5/1 and 10/1 cans.

Source:

www.food.unl.edu

www.webstaurantstore.com



Introduction

Replacing cans, buckets and glass – new ways to package liquids

>> Most food processors are aware that they may have a pouch alternative. Many have hesitated to make the change, unsure that it's really the right direction and perhaps unclear about the cascading direct and indirect benefits throughout the supply chain.

It may be time to look again.

- Pouch packaging materials and machines are advanced and capable
- Cost savings are significant for most producers, and include packaging materials, operations, and fulfillment
- Food service locations also realize significant savings
- The cost and hassles required to add the capability in parallel to traditional methods is less than many expect
- As sustainability becomes an ever more pressing and public topic, processors have the opportunity to differentiate themselves and provide valuable benefits to their customers

Any change in production requires careful analysis and research. Changes which can impact food safety require particular diligence. So it's reasonable that manufacturers are careful and deliberate in their analysis.

Pouch packaging isn't an experimental concept though. It's a thoroughly tested and proven method.

What's less common are machinery suppliers with integrated systems (fillers, VFFS, case packing) important technical capabilities (air free packaging, seal system specifics) and the extensive industry experience to help processors design and implement efficient systems.

- >> For processors willing to do their due diligence, transitioning from cans and other rigid packages to flexible, high barrier pouches, represents an opportunity to:**
- **reduce costs**
 - **improve operations**
 - **differentiate themselves competitively**
 - **meet evolving consumer CSR (corporate social responsibility) expectations**

Rigid versus flexible packaging

Retail packaging has evolved in amazing ways over the past several decades, driven relentlessly by evolving consumer preferences. Expectations for shelf life, aesthetics, convenience, portion size control, and environmental sustainability have all shifted. Packaging has changed quickly to satisfy consumers.

Retail operations and supply chains have also contributed to the changes in retail packaging as stores work to become ever more efficient. Shelf ready units help to reduce labor costs and ensure high product availability at the shelf.

>> In contrast, though, food service packaging has changed relatively little. Bulky and inconvenient institutional packages look much as they did twenty years ago. Cans, tubs and buckets are delivered to restaurants, cafeterias and convenience stores every day around the world. And every day large volumes of waste from these empty containers are hauled to landfills or simply discarded into the environment.

Awareness is gradually increasing, and cost pressures are driving more companies to explore options. Unlike retail packaging which is strongly influenced by vocal customer demand, food service packaging serves a variety of stakeholders with extensive capital investment and established supply chains and processes.

Although substituting a pouch for a 2.7 liter can (#10 can) is an insignificant recipe change, there are habits and documented processes which ensure quality and require updating. There's inertia to overcome.

Nevertheless, consumer expectations are starting to influence retail food operations in areas such as straws and takeout containers. As awareness and focus grows on exploded ketchup packets in parking lots and overflowing dumpsters, back of house operations are gradually evolving.

Flexible packaging is one area with the potential to make the largest impact quickly. In fact, many in the industry are familiar with the considerable material cost reductions available through flexible packaging. This guide explores the pros and cons of the flexible alternatives, as well as current developments in packaging materials and machines.

Same product quantity – but very different outcomes. Flexible packaging offers a clear advantage with reduced volume and weight of packaging waste.



Rigid versus flexible packaging

Chances for change – machines and packaging materials

Machines and packaging materials have both evolved over the past decade. Advanced machine design has solved some of the most common challenges, particularly related to sealing. Films have become stronger, more elastic, and significantly thinner and also now have important barrier properties.

Combined, those developments offer great chances for a sustainable repositioning: Flexible packaging improves handling and processing of packaged goods and at the same time allows optimization of supply chains and storage areas.

Protection for people & the environment

- No risk of injury from sharp rims
- No shards or metal chips in production or processing
- No knives or scissors as fitments, tear notches and dispensers help with opening and use

Product protection

- Product-friendly processes protect taste and appearance
- Optimized durability through engineered packaging materials
- No danger of metal chips or shards in packaged products

Material usage & food waste

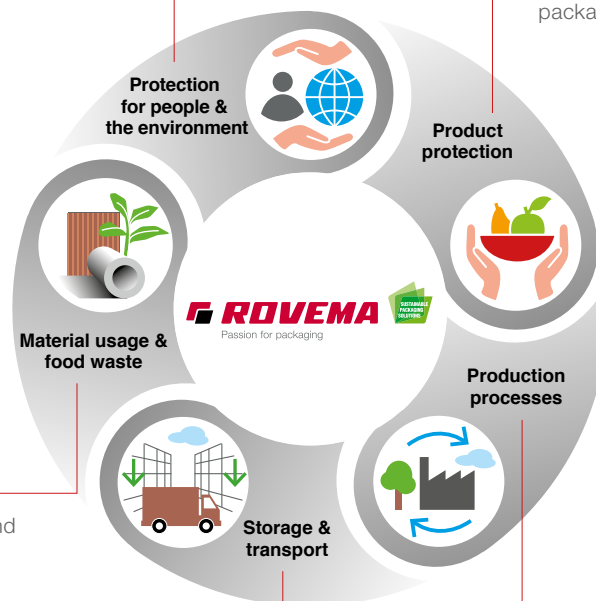
- Reduced packaging volume and weight improves sustainability
- Easy and complete emptying reduces wasted food from product residue in the packaging

Storage & transport

- Optimization of transport and storage volumes due to space-saving pillow bag shape
- Production: reduced space needed for film rolls compared to empty cans
- User: reduced space required for disposal of empty containers

Production processes

- More flexibility in packaging of different foods. Products in brine, homogeneous (pumpable) products and homogeneous products with solid components can be packed
- Fast changeover between package volumes and sizes
- Faster cooling, freezing and heating times save energy and water
- Transparent packaging simplifies product identification and quality control



Flexible packaging for food service products

Appropriate for diverse products

Flexible packaging (high barrier film pouches) is an alternative to traditional foodservice rigid packaging methods including cans, food grade buckets, gable top cartons, tubs and some glass. Products easily converted to flexible pouches include sauces, condiments, soups, gravies, icings, and fillings.

“Flexible” doesn’t only describe the material and final package, but also the technology’s overall adaptability to product handling requirements, and both frozen and shelf-stable package types. Hot and cold fill are both common.

>> Pouch packaging offers a variety of sustainability, cost and operational benefits to manufacturers, distributors and end users which we explore later in this guide.



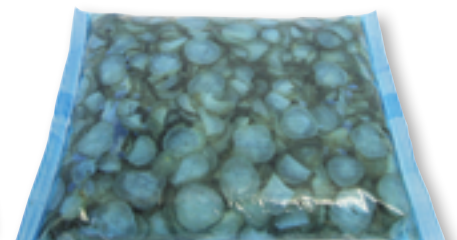
Homogeneous

- Mayonnaise
- Ketchup



Homogeneous with solid parts

- Jam, jelly, fruit fillings
- Marinades and sauces
- Molokhia



2 components (solid and liquid)

- Cucumber slices in brine
- Pickles
- Olives in oil or vinegar

Homogeneous products are typically pumped into pouches for accurate volume control. To fill liquids containing solid parts (2-component-filling), combined filling methods are used. Combination scales deliver accurate

net weight quantities of solid components while brines or other liquids are pumped in after solids are deposited.

Flexible packaging for food service products

Technical Method

These packages are produced by creating a tube from a roll of flat plastic using a method known as Vertical Form Fill Seal or VFFS. In the course of a single production cycle, the bottom of the tube is sealed and the overlapping film (often on the back or side of the tube) is progressively sealed as the film unwinds to complete the tube. Product is dropped or pumped into the tube, and then the top is sealed. This simultaneously creates the seal for the bottom of the next package and cuts the complete package free from the tube.

>> Format (package size) flexibility is inherent in this method. Weight or volume can be easily adjusted by simply changing the length of the tube and changing the amount of product which is delivered.

This continuous filling process delivers some product specific capabilities as well. Products which float because they are less dense than the liquid in which they are packed can be controlled while excess liquid is removed. Olives, for instance, can be contained within the bag by partially closing the sealing jaws even as the package is squeezed to remove air in the “headspace.”

Accurately calibrating the package volume with known, repeatable dimensions (width and length by machine set-up, and thickness by servo controlled compression) allows for all air associated with the package creation to be removed. This often eliminates the need for “dosing” with liquid nitrogen to create inert headspace for certain products to avoid oxidation. (Air trapped in products themselves may gradually collect in packages.)

Flexible packaging for food service products

Packaging Materials

Flexible packaging made of plastic can be used as a replacement for traditional rigid materials like glass or metal. Flexible materials are continuously improved and are often specifically adapted for the characteristics and needs of certain packaged goods.

Veterans in the food service industry may recall early attempts to transition food service packaging to pouches, and frustration with films which weren't really ready for the task. Yet the past decade has seen remarkable advances in film engineering and manufacturing.

To comfortably rely on films in these applications, they must:

- Perform under extreme heat of hot fill and retort
- Retain strength when deep frozen
- Resist punctures and tears from handling, dropping, stacking
- Open easily by design
- Keep product safe for consumption
- Protect product from light, oxygen and other factors that could degrade the quality of flavor or appearance

>> Today's films meet those requirements even as they're continuing to improve.

Current multi-layer coextruded films are the thinnest, yet most puncture resistant that have ever been available. Südpack, for instance, has been able to reduce film thicknesses from 120 μ to 90 μ , sometimes as thin as 60 μ – up to a 50 % reduction! The multiple layers of films are each engineered to deliver specific capabilities including seal strength, tear and puncture resistance, oxygen barrier, and UV protection for product and film.



Expert Tip:

It's also important to understand what's NOT in today's pouch packaging materials. BPA (bisphenol-A) which is believed to have negative potential health effects, is not present in films. A 2018 survey by the Can Manufacturers Institute of its members found that 90% had replaced the BPA material commonly used for can linings. End users, however, can't verify, 4 levels up in their supply chain, whether the cans in which their food is delivered are among the remaining 10%.

Today's films not only manage the protection and distribution tasks we require of them, but they are also flexibly adapted to the packed good's demand.



Flexible packaging for food service products

Internal processes

The interaction between product, packaging material and machine in production must be managed. Through the creation of technical set-up “recipes” at the packaging machine, processes become reproducible. Changes in filling quantity, bag size or a product change are stored as pre-set configurations for fast and error free changeovers.

Whilst comparing production processes of rigid and flexible packaging, the following areas are of special importance:

- **Cost** – flexible packaging reduces costs in nearly every phase of the supply chain. Packaging materials, transportation, material handling, storage and disposal are all reduced by switching from cans (or tubs, buckets, gable top cartons or glass) to films.
- **Contractual tie-in of materials with machines** – as large as the potential savings may be, there is a potential factor that may limit savings. Some machine manufacturers tout single source responsibility for both machines and materials, but then often constrain customers with material purchase agreements which limit potential material savings, create supply chain exposures, and may preclude access to innovative films.
- **Sustainability** – one of the most compelling considerations in light of market expectations is the reduction in energy and materials required to produce the packages, and a corresponding reduction in waste disposal (even after accounting for recycling).

- **Output rates** – VFFS machines generally run at approximately 50% the speed of a typical can filling & seaming line.

- **Changeovers** – compared to canning lines, VFFS changeovers are often a tool-less push-button change that takes just minutes.

- **Pasteurization and sterilization** – a well refined and automated process for cans, re-tort for pouches typically requires less energy (and therefore reduces risks to flavor and color of product) but may only be semi-automated.

- **Footprint** – a typical VFFS machine occupies a floor space of only about 4'X4' (1.3m²). That compares to significantly larger canning lines. Incoming empty container material handling space requirements are also substantially reduced as we explore later in the guide.

- **Maintenance and operational complexity** – canning and flexible pouch solutions both require filling and pack-off. However, pouch packaging involves a single machine for the packaging process itself, which means substantially less cost for maintenance, repair, spare parts and planned or unplanned downtime.

Flexible packaging for food service products

Vertical Form Fill and Seal machines (VFFS)

Films are the most obvious components of this alternative packaging system. Yet the packaging material is only one critical component of two. The VFFS machines which package products in flexible pouches are the other. There are numerous manufacturers around. A handful are particularly prominent in brand familiarity, longevity and number of global installations, and expertise.

Machine suppliers should be evaluated for flexibility, performance and total cost of ownership. Some manufacturers require a commitment to a certain packaging material supplier, while others allow a free choice of packaging materials.

>> Consistent seal strength, dispensing fitments, filling accuracy and other technical attributes may seem at first to be common “table stakes” but often differ substantially between machines.

ROVEMA developed the first VFFS packaging machines with rotating belts (the technical principle of most machines available today) in 1959. They’ve developed numerous technical innovations in the intervening 60 years, while installing more than 30,000 machines around the world. Among ROVEMA’s more notable innovations in the food service packaging space are patent pending technology for air-free combination packaging of solid and liquid products, and various sealing innovations

which include servo enabled solutions (Sense and Seal™ and Premium Seal™) for very high pressure sealing (important for thick and complex film structures) and to remove all product from the seal area prior to sealing and cutting. This is critical to consistency, hermetic seal integrity, food safety and operational efficiency.



ROVEMA BVC 310 Liquid for the packaging of liquids into pouches



Fitments for the usage of flexible pouches in dispensers. Source: ASEPT



Flexible packaging for food service products

Sustainability

>> The sustainability benefits derived from replacing cans with flexible pouches are compelling from a simple financial perspective alone. They're also increasingly important as consumers become more interested in sustainable products. It's increasingly common for companies to publish CSR goals and guidelines regarding carbon footprint, energy consumption and recycling.

Replacing rigid containers with flexible high barrier pouches improves sustainability at a number of points throughout the supply chain. These include:

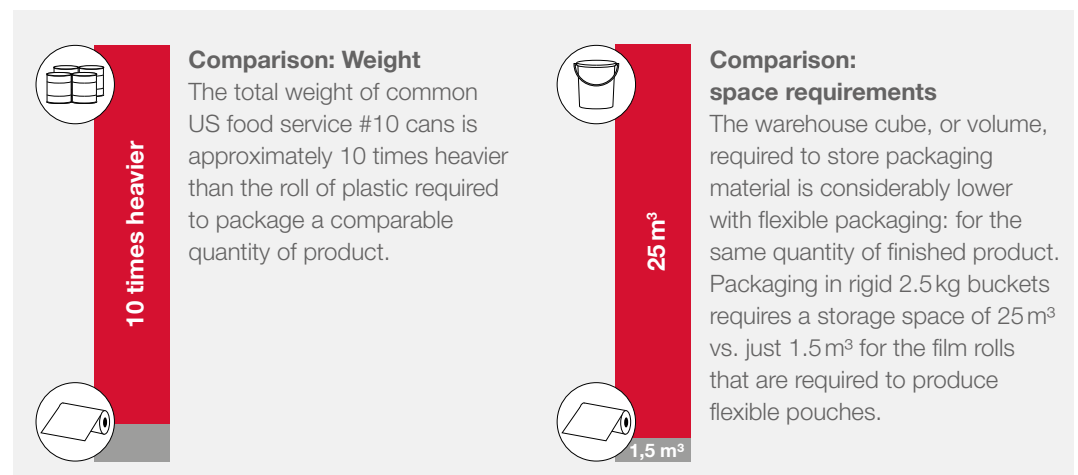
- Packaging material production
- Packaging material transportation, material handling and storage
- Production energy requirements
- Floor space requirements
- Finished product transportation and storage
- Empty container disposal

Let's quickly look at each.

Packaging material production – the energy required to obtain and process rigid packaging materials can be enormous. Mining the components and then producing steel and aluminum are incredibly resource intensive. The manufacturing of co-extruded plastics certainly consumes resources as well. Generally, however these flexible plastics are produced with less energy consumed per finished package. For instance, a single roll of plastic (diameter 400 mm) can pack the same amount of product as 11,000 steel #10 cans.

Packaging material transportation, material handling and storage – the difference in volume and weight of packaging materials is significant. Very few operations are vertically integrated (produce all product and packaging materials in a single location). Therefore, the packaging materials are manufactured elsewhere, transported to the packaging facility, and then stored there for use.

Comparisons deliver astonishing results



Flexible packaging for food service products

Sustainability

Inherent rigid container design limitations mean that transport and storage volumes can't be optimized. That results in excess space requirements throughout the entire supply chain. From the carbon footprint of trailer loads of empty containers (shipping mostly by air) to vast warehouses with multiple receiving doors and numerous fork trucks – and the huge energy requirements to heat and cool those spaces – the purchase and use of pre-made rigid containers are enormously energy and capital intensive.

Production energy requirements – compressed air and electricity are the common energy inputs to packaging processes. Filling and seaming cans involves extensive conveying and numerous machines all of which must be powered. During some stages (e.g. can washing) there's even consumption of water which is increasingly recognized as a resource to be carefully conserved. High-speed mechanical processes typically draw significant electrical and air for operation. In contrast, VFFS (particularly those designed with energy efficiency in mind) draw substantially less on resources.

Pasteurization and sterilization of flexible pouches also requires less energy. The packaging material itself absorbs less, and the shape of packages facilitates even distribution of heat/cold in the packaged product. So product safety can be achieved faster and with less energy for flexible pouches than for rigid containers.

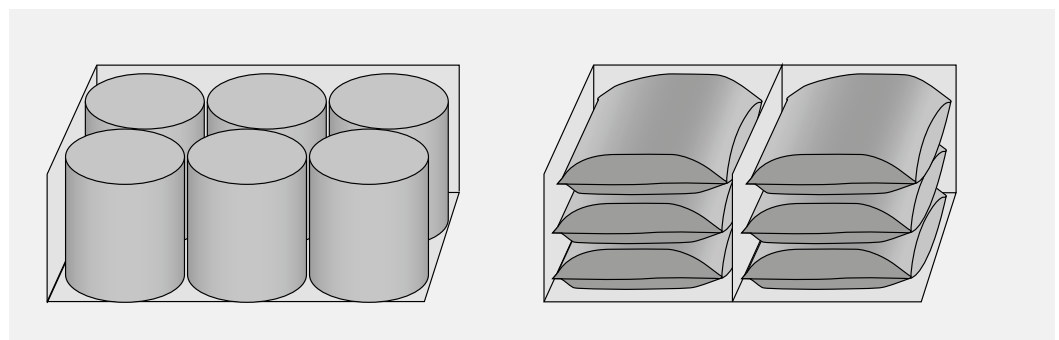
Floor space requirements – production space is resource intensive to build, to maintain and to operate. Therefore, the compact space requirements of VFFS packaging lines means that capacity expansions can usually be realized without increasing the production area. This avoids the impact of additional construction and reduces the energy required to light, clean, and heat/cool the packaging spaces.

Finished product transportation and storage – rigid packaging methods are inefficient from a finished product space perspective. Round containers, for instance, inefficiently occupy lots of empty space between them, even when packed as densely as possible. Pouches provide an advantage here.

The total weight of packaging materials (cans and cases) for a finished pallet of #10 cans in cases is approximately 270 pounds (120 kg). That's 150% more than pouches and cases which weigh only 108 pounds (50 kg) for the same finished product volume.

These translate into less space and less weight – in other words less resource consumption through distribution – in warehouses, trucks, back of house storerooms, and of course in energy intensive coolers and freezers! For example, a max weight trailer load will accommodate 19 pallets of pouches vs. only 18 pallets of cans – a >5% reduction in transport related emissions.

Pouches provide more efficient pack-off and transport. The same case would accommodate 6 cans with a filling quantity of 3.2 kg each, or 6 pouches with a filling quantity of 4.2 kg. 32.7% more product can be shipped in comparable cases using pouches.



Flexible packaging for food service products

Sustainability

Empty container disposal – while this is the final step in the supply chain, it's certainly first in easily recognized ecological impact. It's important to note that while some cans are recycled, pouch material, which is not monopolymer, currently is not recyclable. The reality, however, is that only a portion of cans are recycled, and other containers including buckets and gable top cartons are typically not.

>> In a February 2012 study an American company found that “Assuming that cans are recycled at a rate of 62%, laminate pouches are recycled at a rate of 0%, and the secondary package in this case is recycled at 70%; there is a total packaging material reduction of 40%, or 4,689 lbs (2.1 tons) of packaging per 100,000 lbs (45 tons) of product. As a result, the weight of packaging sent to landfill gets reduced by 27%. Despite the recycling rates, the pouch is so much lighter than the can, that the latter cannot offset the significant source reduction of the former.”

Further, the reduced volume of waste means fewer trips to and from waste incineration plants, landfills or recycling centers.

Flexible packaging for food service products

Conclusion

To recap, pouches offer greater sustainability through reduced energy requirements in each of the following areas:

- Packaging material manufacturing
- Packaging material transportation and material handling
- Finished product heating, cooling, freezing and storage
- Finished product transportation
- Waste material disposal

This provides manufacturers, distributors and food service facilities a powerful story to promote to discerning consumers in today's markets.

>> Of course it helps when a change to satisfy consumer concerns also provides numerous additional business benefits to various stakeholders. A transition to food service pouch packaging benefits manufacturers, distributors and end-users alike.



Plastic packaging saves space, transport costs and reduces CO₂ emissions

by the example of a yoghurt packaging



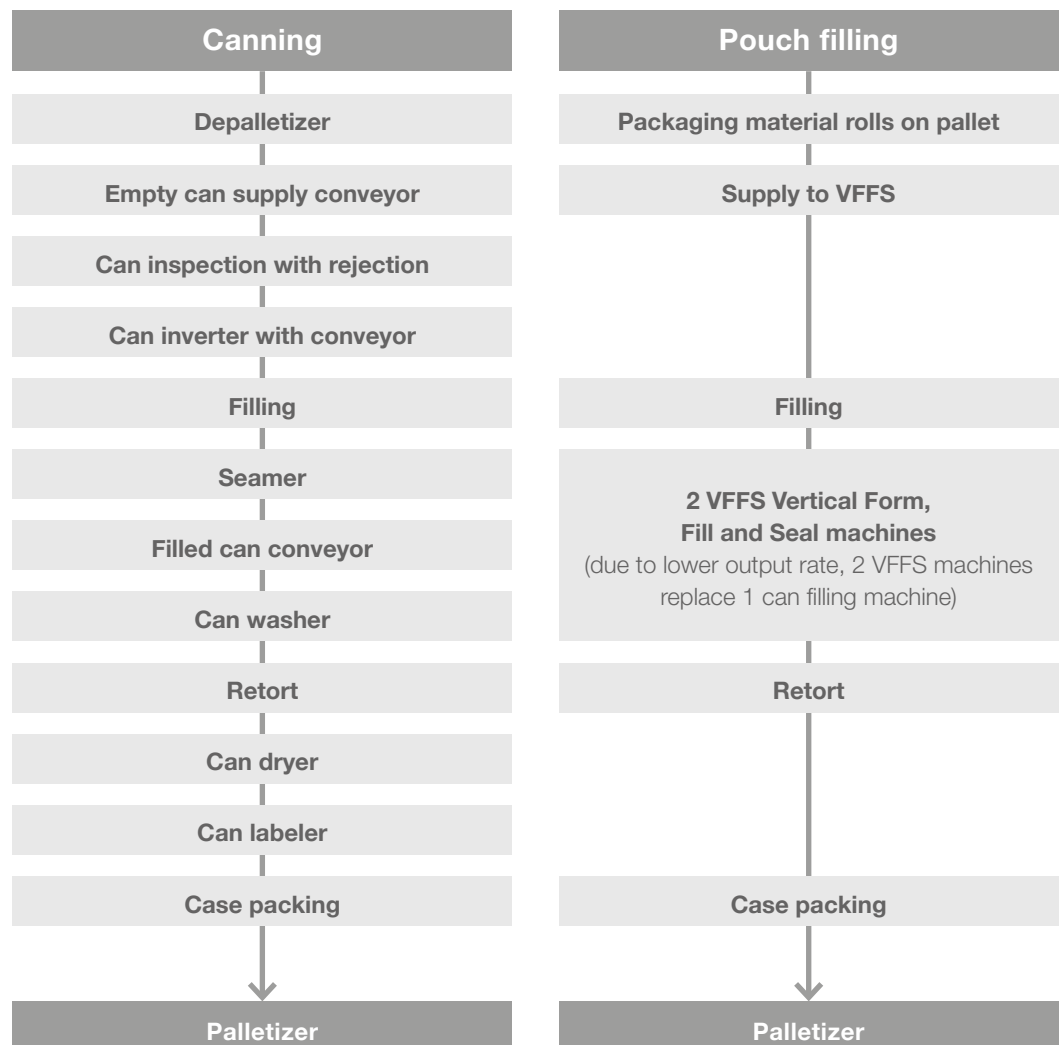
Source: Milch NEWS Edition 2/2019, Page 10

Flexible packaging for food service products

Customer benefits

>> The benefits of switching from rigid to flexible might be wide ranging, but it's still a change. And change can be hard. Often this transition is undertaken in parallel – in other words, most processors don't just tear out canning equipment and replace it wholesale with pouches. Instead, it's often introduced as an alternative – for existing or new products. Because the floor space requirement is quite small, that can be achieved without significant reconfiguration.

Let's look at the impacts throughout the manufacturing line and supply chain.



Flexible packaging for food service products

Customer benefits: Processors/manufacturers

Food processors certainly have the most to gain with numerous benefits to their operations and great marketing and sales benefits.

COST REDUCTIONS IN MACHINERY, MAINTENANCE AND OPERATORS

Cost reductions start with the difference in the machines required and the related space, operations and maintenance implications. Obviously, every product, process and factory is different, so this is only intended as an illustration.

As a general rule of thumb, **annual maintenance** costs for a typical food packaging machine are approximately 5% of the initial capital cost.

Maintenance costs extend beyond the replacement parts, salaries and scheduled down time. Space is required for a parts crib. Maintenance teams must be trained on each machine. Manuals must be stored and updated. There's a carrying cost for parts inventories.

Operator wages and training relate directly to the number and complexity of machines being run. Although lines are largely automated, they still require supervision. In a world where hiring and retaining skilled technical talent is expensive and difficult, trained and experienced operators are a valuable commodity. More machines means more operators – fewer machines means savings in wages, HR, recruiting, training and more.

Unscheduled downtime is a simple fact in packaging. Although each machine may be designed to run at a high efficiency rate, more machines mean more downtime. The more machines in production, the higher the percentage of unplanned downtimes for the overall line. Each machine may be down only briefly and occasionally, but the cumulative impact is large.

Floor space is a related cost. Building it, expanding it, heating/cooling it, lighting it, cleaning it and managing it are all costly. Long, intricate canning lines require large spaces. Bagging occupies a much smaller space. The space requirement to store film rolls usually is much smaller than the space required for empty cans.

Changeovers are killers of net efficiency. Long lines with numerous components take longer to change over. That's a simple fact. A modern VFFS machine often includes toolless changeover, and simply changing the package size may not even require a different role of plastic. It's often as simple as selecting a package "recipe" from a list of saved settings in an operator menu.

Cost for electricity and water is infrequently considered when comparing packaging solutions, yet it can be a significant long-term cost. Compressed air is increasingly recognized as a large, but often hidden cost, and electricity to operate complex lines with multiple machines is significant. Additionally, as noted above, the differences in the packages themselves makes a difference in the energy required to heat and cool. Pouches can be cooled or heated quicker due to their better temperature transfer and larger surface area. Unlike cans which must be washed before and after filling, film rolls only require controlled and clean storage.

Noise mitigation is receiving gradual increasing attention as an opportunity to improve working conditions and reduce risks to factory workers. Many companies still simply hang boxes of foam ear plugs by entrances to the factory floor. Others, however, are designing noise mitigation into machines. Long conveyors with jostling cans and more mechanical and pneumatic machines create more noise. VFFS solutions substantially reduce ambient noise.

Flexible packaging for food service products

Customer benefits: Processors/manufacturers

If you were to go straight to the bottom line, discounting consumer expectations, end user preferences, corporate sustainability philosophy, operational savings and the other factors discussed, **material cost savings** often drives the transition from #10 cans and other rigid packages to high-barrier flexible pouches.

MATERIAL COST SAVINGS

The magnitude of savings fluctuates with the cost of steel and aluminum, and it will also change as policy and regulatory changes impact the efficiency of recycling programs.

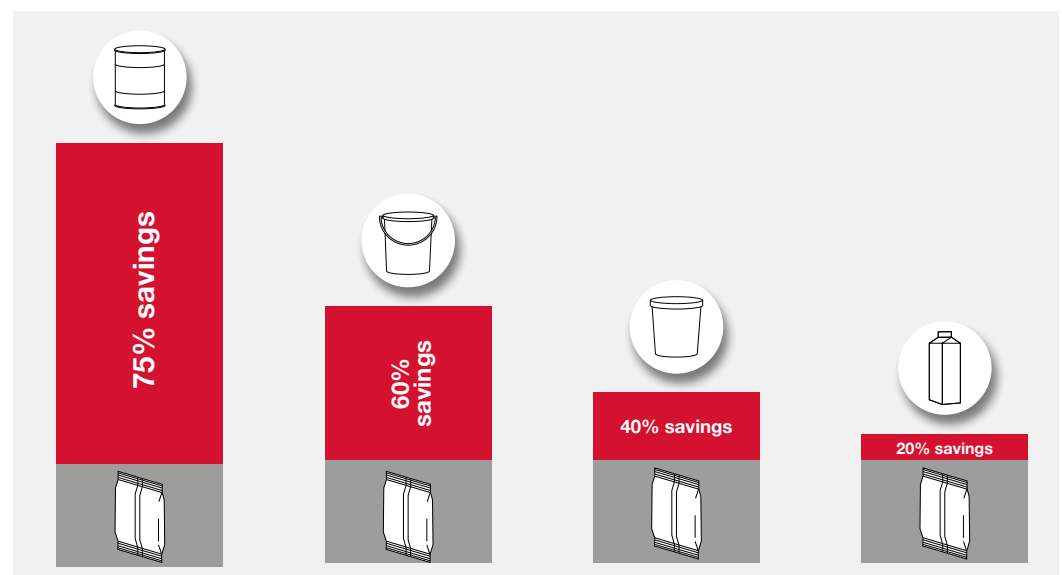
As a rule of thumb, each high barrier pouch costs approximately 0.16-0.26 USD (0.15-0.25 EUR), and therefore provides the following approximate material savings compared to other methods:

- 75% savings vs. #10 cans
- 60% savings vs. 5 gallon HDPE buckets
- 40% savings vs. 5lb tubs
- 20% savings vs. 1 gallon gable top cartons

Those savings represent additional margin and competitive advantage to the processor, and are the processor's. End users realize additional savings themselves.

Procurement costs are also impacted. Not only are there fewer procurement dollars to manage, but there are often fewer items to inventory, vendors to manage, and invoices/ payments to process. Pouch material (rolls of plastic) replace multiple sizes of cans or other containers, lids, labels, and glue. That reduces overheads, and reduces the inevitable incidence of out-of-stock components and expensive expedited delivery.

Material costs of packaging forms in comparison:



Flexible packaging for food service products

Customer benefits: Processors/manufacturers

Labor costs

As noted above, more machines require more operators. The filling of food grade buckets, is a largely manual process with a higher labor component per package.

Changing to high barrier flexible pouches can increase production speed and reduce labor cost. Automatically filling 5 x 1 gallon pouches is accomplished faster than manually filling a bucket, and without the associated labor cost.

CONCLUSION

Obviously, there are substantial benefits to this change from the perspective of the food processor. However, there are other factors, which weigh on the decision.

- The change involves some factory changes. Because VFFS lines are compact and typically installed in parallel with canning lines, it is often not significant. It will require some engineering and planning, as well as some additional utilities drops and product transfer to fill at an additional location.
- New machines and techniques – operators and maintenance have to learn about new equipment.
- Cultural change – marketing and sales teams have to embrace the change, create promotional materials, and guide customers through the change.

- High barrier pouches aren't filled as quickly as cans. Typically, they run at about half the rate, which means that two VFFS machines are required to match the output of a typical canning line.

- For products which require retort, the process is not as automated as with cans. They often require manual loading into trays.

Pouch packaging can be a differentiator for food processors in competitive markets. There's a large potential benefit that's hard to quantify.

Expert tip:

Every company boasts high quality products, and every market demands attractive prices. Sustainability, though, is a topic that's growing in importance, offers competitive advantages and room for future growth.

Switching from cans to pouches creates a marketable advantage for the processor, provides tangible operational benefits to the food service end users, and provides a great story for all parties that want to communicate their sustainable progress to the outside.



Flexible packaging for food service products

Customer benefits: Distributors

While distributors fulfill a critical function in the food service supply chain, the benefits they realize as suppliers shifting from cans to pouches are smaller than the processors' and end users'.

>> **Efficiency in volume and weight of finished products – in warehouses, coolers, freezers and trucks – is the primary benefit for distributors.**

Expert tip:

Distributors are also conduits to bring new and creative ideas to the field. A distributor's sales team can win loyalty, and perhaps new business, by helping food service locations understand how pouches can improve their operations.



Flexible packaging for food service products

Customer benefits: Food Service

After the processors, the big winners with a shift to pouches are cafeterias, convenience stores, restaurants, and canteens. They're increasingly demanding the change from conservative processors who'd rather just maintain the status quo despite the potential savings.

>> The back of house benefits aren't glitzy, but provide real value in the day-to-day operations of the typical food service operation.

These include:

- **Eliminating sharp edges** – no can openers or sharp lids. Pouches can be produced with tear notches for easy opening by hand with no knives or scissors required.
- **Quality / product safety** – chefs may find that pouch products deliver better taste and color. Eliminating the step of opening cans also eliminates the risk of metal fragments ending up in food.
- **Product identification** – it's easy to see what's in the package. This facilitates inventory tracking and reduces waste by preventing opening product, which remains unused.
- **Storage** – storage space is always at a premium whether refrigerated, frozen or simply dry storage. The efficient form of pouches reduces the space required for storage.
- **Increased product yield** – it's easier and faster to completely empty a pouch than other types of containers which require dumping or scooping. Squeezing pouches completely empties them and reduces ingredient waste. Scraping out rigid containers also might cause metal shavings or plastic abrasions in the prepared food.



Usage of pouch with fitment in dispenser

Flexible packaging for food service products

Customer benefits: Food Service

- **Disposal** – perhaps the biggest savings for food service locations is related to disposal cost. Dumpster tipping fees, recycling requirements, employee and vehicle access to waste removal locations, and labor related to waste and recycling are all factors. Urban locations often experience these constraints most acutely.

- **Consumer convenience** – fast food condiments are an area of rapid growth for high barrier pouches. Equipped with dispensing fitments, pouches quickly and hygienically refill centralized dispensing stations. Customers are able to dispense exactly the right amount of sauce or jam they want, preventing waste and litter. Restaurants may even offer reusable containers or bowls.

>> **These clear back of house operational advantages compliment the marketing and a contemporary positioning.**

Expert tip:

Consumers expect safe and sustainable position. Processors understand that responding with changes like BPA-free packaging and improved sustainability will position them as preferred suppliers in the future.

An optimized supply chain built around flexible pouches can concretely demonstrate a company's sustainable positioning. In fact, "A 2018 survey by Futerra finds that 96% of consumers believe that actions such as ethical buying and recycling can make a difference (in sustainability efforts); 88% of consumers want brands to help."¹

¹ www.ama.org

1. Filled bag with integrated fitment
2. Application of fitment and opening of bag through inserting the fitment in the dispenser
3. Placing the bag in the dispenser
4. Complete draining achieved



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Passion for packaging

