

# The business of filling



*Filmatic's engineering and fabrication expertise means worldclass technology at local prices. This filler is bound for a dairy in Germany.*

From a garage in Paarl to competing with Germany's best filler manufacturers in their own backyard – you could indeed say that Filmatic Packaging Systems has come a long way in 25 years. **FOOD REVIEW** takes a look at the story and products of South Africa's leading liquid packaging equipment manufacturer.

**A**S with every large and established business, it's easy to forget that every one is on a journey that started with a first, small step. Filmatic's began in 1979 when mechanical engineer, Johan Beyers, encountered an exciting opportunity: dairy farmers were crying out for an affordable, entry-level plastic bottle filler as they moved away from the co-op system to their own value-added production.

Operating out of his garage in Paarl and working entirely on his own, Beyers conceptualised, designed, built and commissioned the first Filmatic machines, the Model 3000. They were an 'instant hit', sales took off, Beyers soon had to hire two assistants and find larger premises – and thus was Filmatic born. Today, over 1 130 of Filmatic's Model 3000 fillers have been sold.

As the company grew and prospered in the early 1980s, it was a major strategic decision to enter the export market in 1985 that marked its next big step. Today, a significant portion of its sales are to foreign customers and over 2 600 of Filmatic equipment operate in 21 countries, including Western and Eastern Europe, Australia, Taiwan, South East Asia, Mexico, the UK, US and Sub-Sahara Africa. A number of these countries are directly supported by an international agency network.

Between 1991 and 1998, Filmatic not only improved its existing products, but also diversified its range by adding pick and place cappers, in-line pump fillers and unscramblers. This ongoing evolution of products, design and technology saw Filmatic well-placed to take a giant and bold leap into the top-end of the market in 1999 to leverage the growing demand for extended shelf life (ESL) products. This has seen the development of advanced rotary flow meter fillers, rotary net weight fillers, as well as rinsing equipment to serve the ultra clean market. This has allowed Filmatic to intensify its export drive and penetrate new markets, developments complemented by its

recent ISO 9001:2000 accreditation, meaning its standards are benchmarked against the best in the world.

Filmatic's move into the realm of ESL and ultra clean filling has put huge demands on the company, as Beyers explains: 'It's technically difficult and a very costly exercise – our investment in R&D has been significant but we view it as a key area of growth. Furthermore, to compete on the global market, good quality is simply not enough – you have to offer technological advantages,' he comments. 'You can no longer be machine builders but have to show expertise in the likes of electronics and microbiology, as ideally, you have to be more knowledgeable than your customers.' This extensive spend on R&D has paid off handsomely with the procurement of substantial export orders, and perhaps none so notable as Filmatic's latest coup – a contract to supply an ultra clean



**Filmatic's senior management team: founder and MD, Johan Beyers; Martin Raubenheimer, Marketing Executive; Riaan van Zyl, Production Executive; and Leon Cilliers, Financial Executive.**

filler to a dairy in Germany, and winning the deal ahead of major European competitors in their own backyard.

For an export-focused company, the 'rand climb' is currently Filmatic's biggest challenge: 'A weak rand meant our equipment was very competitive internationally, but the scenario has changed dramatically and a strong currency is a reality that we have to live with and plan for,' says Beyers. Filmatic is again reverting to its R&D strengths to retain its reputation as a top quality, value-for-money vendor with a programme of 'value engineering', involving better design, smarter fabrication, more efficient buying and improved productivity – and without compromise for the customer. Strategic partnerships with other players are being explored, and Filmatic is also putting revived impetus behind its entry-level products and customers.

'Our vision is to shape the future of packaging, to be at the cutting edge of technology,' comments Beyers. 'We pride ourselves in the fact that we have a solution for every packaging need – our success is evident in our clientele and the strong market share we enjoy in the dairy industry, food and beverage markets and cosmetic and industrial markets.'

# The complete package

Filmatic specialises in stand-alone and turnkey liquid filling and packaging systems, offering a range of complementary upstream and downstream agency equipment, from empty container handling to rinsing, filling, capping, labelling, conveying and end-of-line packaging. Filmatic's machines are renowned for quality and value for money, while the company prides itself on its design excellence, back-up service, and total flexibility to meet customers' special requirements.

## Cutting-edge technology

Filmatic's mission is to stay on the forefront of technology by modernising and designing equipment to fulfill the specific needs of their selected target markets. The aim is always to be one step ahead, as epitomised by its rotary flowmeter and net weight fillers which offer manufacturers world class technology at South African prices. These filling systems — available in ultra clean and standard versions — ensure very accurate filling and therefore significant cost savings. The development of net weight fillers has also opened up rewarding industrial markets for Filmatic as they can handle very viscous products

*Filmatic's net weight fillers have opened new industrial markets for the company.*



Ultra clean net weight fillers incorporate the unscrambling, delivery and filling of pre-labelled PET bottles of variable size in a clean environment (HEPA A/B); delivery by air conveyor to the filler; sanitising of caps and bottles before filling; and a fully automated CIP system. This technology enables the production of cold chain and even ambient-stable products such as fruit juice, dairy beverages and sauces with extended shelf life. Glass bottle handling is optional.

Individual load cells control the target mass in each bottle, while non-contact shut-off filling valves are pneumatically actuated and ensure a clean filling action. Accuracy is 0,25% standard deviation. It features full electronic control, with management information displayed on the touch screen and also linked to a Factory Management System.



*Filmatic's office premises adjacent to its factory in Paarl.*

## The labours of level fillers

Level fillers are the core of Filmatic's business and permit gentle, gravity-fed filling for accuracy but without foaming. Level control in the filling bowl is regulated by a modulating valve, the containers open the filling valves which fill to a constant level measured from the top of the bottle.

These fillers can be combined with rinsers on a monoblok base and are designed to rinse, fill and cap different shaped containers from 250ml to 5-litres. Filling speeds vary from 40 bpm to more than 500 bpm. The model range varies from eight to 60 filling heads.



*Fruit juice, bottled water, fresh and flavoured milk or drinking yoghurt, you can be sure that many of these products you enjoy were filled on a Filmatic level filler. This ultra clean level filler was supplied to Unilever for Lipton Ice Tea.*

## Filmatic's product range

- Semi-automatic rotary indexing fillers
- Piston (volumetric) fillers
- Electronic in-line pump fillers
- Rotary flow and net weight fillers
- Ultra clean 'extended shelf life' fillers
- Rotary fillers with foil cappers, screw cappers, snap cappers, pick and place capping, glass/foil capping, combination capping (foil and screw-on) and ROPP cappers
- Stand-alone rotary cappers
- Bottle conveyors and elevators
- Unscramblers for plastic bottles
- Labellers – self-adhesive
- Bottle and cap rinsers
- Various cap unscramblers
- Line control

## Focus on Filmatic

### New generation level filler

The demand for entry-level fillers in the food and beverage industry is ongoing and Filmatic has responded with an upgraded version of its 'workhorse' level filler, a cost effective, user-friendly machine that suitable for filling dairy, water, juice and other still beverages in 250ml to 4-litre containers.

Key features: Quick-change parts; variable speed control; hygienic design; low maintenance; uncomplicated operation.



*Filmatic's new generation flexible level filler; uncomplicated entry-level technology.*

### Super-accurate sachet filling

In yet another demonstration of its engineering versatility, Filmatic recently supplied four plastic pouch filling machines at one of Gauteng's leading juice/mageu manufacturers, Take 5 in Vanderbijlpark.

These machines are vertical, single-lane, form-fill-seal, inline fillers used for 250ml to 1-litre fruit juice sachets. Juice dosing is a continuous flow system controlled by an adjustable angle valve, a high-precision system that enables a very accurately weighed packaging. Capacity is up to 2 200 sachets per hour.



*Leading Gauteng fruit juice company, Take 5, recently commissioned four Filmatic pouch fillers.*

### Goodbye noise pollution

Filmatic designs and manufactures a wide range of rotary cap unscramblers, including horizontal, incline and vertical types, as well as waterfall unscramblers, all designed to work with a wide variety of closures, including sports caps.

In another exciting design innovation, Filmatic has developed the 'Silent Wave' plastic bottle unscrambler that lowers noise pollution to below international standards. Customised to handle various container sizes and shapes, units are fed in bulk



*Above: Quiet and orderly, Filmatic's new 'Silent Wave' plastic bottle unscrambler.*

*Left: A waterfall cap unscrambler.*



into the unscrambler cowl by an elevator. This is electronically controlled, according to demand, which ensures optimum volume of containers in the cowl for excellent efficiency. Containers move by gravity on an inclined disc, assisted by air jets, into selectors before falling through funnels in an upright position to the vacuum discharge conveyor/airveyor. There are no mechanical parts to apply pressure to the surface of the bottles.

### Filmatic's blue-chip customers

- The Lever Group of companies
- Nestlé
- Cadbury Schweppes
- Parmalat
- Danone Clover
- Bromor Foods
- Ceres Fruit Juices
- Total Oil
- Johnsons Wax
- Colgate Palmolive . . . and many more

# Engineering and service excellence

Filmatic is one of South Africa's top packaging systems companies due to a combination of foremost technology and a worldwide comprehensive service performed by highly skilled technicians.

**W**ITH in-house design equipment, a design team of 15 engineers, 25 years of experience in the liquid filling and packaging industry, a 24-hour maintenance team and agency equipment sourced worldwide, not many South African companies can match Filmatic's services and capabilities.

Filmatic's electronic and mechanical engineers work with sophisticated, top-end CAD software ? Solid Works — that optimises their designs and lead times to manufacture. 'The programme permits amazing visualisations from every conceivable plane and angle ? a feature that customers appreciate as they can see exactly what they are buying,' comments Martin Raubenheimer, Filmatic's marketing executive.

Another important service is Filmatic's maintenance back-up team that's on standby day and night, and a phone call away from flying to any destination in the world. 'Service is a very important part of guaranteeing the quality of our products,' adds Raubenheimer. 'Another very important facet of our service is operator training. We can install equipment in any country and supply comprehensive training in operating and maintaining it. This is further backed up by our outstanding and meticulous machine manuals that are compiled by a fulltime technical writer.'

Filmatic also has two supporting companies, namely Filmatic Machining and Fabrinox. Filmatic Machining operates 24 hours/day and its main task is to supply machined components. This is done by utilising state of the art CNC machines. Fabrinox is a sheet metal fabrication company with laser-cutting capabilities. 'In effect, Filmatic has everything available in-house which is conducive to efficiency, service, quality and productivity,' notes Raubenheimer.



*A member of Filmatic's extensive team of engineers at work with Filmatic's top-end CAD software.*

## Better capping

Filmatic recently patented a pneumatically-actuated capping head design that results in better handling of screwcaps with fragile tamperproof rings on pick-and-place cappers.

The capping head lowers onto the cap to pick it up during the pick-and-place sequence. Normally, this would exert pressure from above on the cap, resulting in possible breakage of the tamperproof ring. With the new pneumatic grippers, the cap is

gripped firmly from all sides without placing any pressure on the ring and eliminating any potential deforming.

*Better handling of screwcaps with Filmatic's patented pneumatic gripper.*



## World class assurance

In 2001, Filmatic received its ISO 9001 listing, which was recently upgraded to ISO 9001:2000.

'Over the past two years we have invested extensively in raising our systems to comply to the higher-level ISO grading, and which we achieved on first assessment last September,' says Filmatic's financial executive, Leon Cilliers. 'We constantly strive to achieve the highest manufacturing standards and this accreditation gives our customers this assurance.'

In addition to this listing, Filmatic also conforms to the American 3A and the European EHEDG standards.



*Filmatic's team behind its recent ISO 9001:2000 certification.*



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Propak Africa in March!**