

# AEROdynamics

Issue No.12

WHAT'S NEW IN AEROSOLS

AEROdynamics is designed to keep you up to date with the latest in aerosol innovation. This special edition looks at some of the latest developments in the aerosol industry and features the winners and short-listed companies of the 2010 BAMA Awards. The Awards aim to recognise innovation, success and ongoing improvements and pays tribute to the excellence in the aerosol industry. One of the Awards' judges and this issue's guest columnist is former BAMA Chairman, Tony Wardell. Turn to page 2 to read his comments regarding innovation in the industry.

## BAMA AWARDS 2010

The categories for the Awards included: Economic Sustainability, Environmental Benefits and Social Responsibility. The three judges were; Tony Wardell, former CEO Swallowfield; Nick Mullen, Director MPMA (Metal Packaging Manufacturers' Association); and Crian Wilson, Boots Toiletries Specialist Advisor.

AWARDS 2010  
BAMA  
SPECIAL  
EDITION

### The winners are:

#### Economic Sustainability

**Cascade Technologies and Unilever:** A collaboration to find an innovative solution to identifying any leak detection on aerosol filling lines – The Micro Leak Detector.



**Short-listed:** Impress for its TAFT Hairspray Embossed Can.



#### Environmental Benefits

**Unilever in conjunction with Alupro and BAMA:** for its Aerofoil Campaign, that encourages Local Authorities to increase recycling of empty-aerosols and aluminium foil packaging.



**Short-listed:** Honeywell, for its HFO-1234ze green solution for aerosol propellants.



#### Social Responsibility

**Crown Aerosols UK:** for its engineering apprentice scheme.



**Short-listed:** Fillcare, for its new Liquid Petroleum Gas Facility.



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# GUEST COLUMNIST



**Tony Wardell**  
Former BAMA Chairman

Tony Wardell is a consultant to the aerosol industry.

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I have been involved in the aerosol sector for over forty years and I have seen many issues that could have knocked a less robust industry off-balance. During my time as Chief Executive of Swallowfield plc, one of Europe's foremost contract fillers and as the chairman of the Industry's association, BAMA, I've seen many changes. But today, our industry is not only buoyant but thriving, and this is testament to consumers still wanting and appreciating the convenience, reliability and effectiveness of the aerosol format across a vast range of products. It is innovation and investment that have kept us there in a prime position.

Being a member of the judging panel for the 2010 BAMA Awards allowed me to see first-hand how much progress has been made in investment, innovation and ideas over the past five years, since I relinquished my full-time position. The number of entries into the Environmental Category was particularly pleasing, and I know from my time as Chairman of BAMA how the Association has sought to push and promote issues that are key to the on-going welfare of not only our industry but to the environment too.

BAMA has been determined and successful in the arena of encouraging Local Authorities to accept empty-aerosols for recycling growing the number of councils who offer recycling of empty aerosols from 7 per cent, fifteen years ago, to over 75 per cent in recent years. It was gratifying to see that the 'Aerofoil Campaign', launched by Unilever in conjunction with Alupro and BAMA, has built on that impressive progress and been recognised for its efforts.

The increasing input into research and education in industry was clearly demonstrated by the number of entrants in the Economic Sustainability Category. Unilever's and Cascade's micro-leak detector for aerosol filling lines clearly demonstrates continuous innovation and investment - as well as the firm belief in the aerosol as a continuing and vital packaging format of the future.

The theme of looking forward is also reflected in the Social Responsibility category, by Crown's Engineering Apprentice scheme which seeks to encourage and create career opportunities for personnel within their factories. This scheme will benefit not only Crown, regarding the level of engineering expertise in the industry, but in time, as inevitably some employees will move jobs, other companies as well. This investment in people was also mirrored by other entrants in the category.

I congratulate the winners as well as the high calibre of entrants in each category. The industry should take heart that such high levels of investment, innovation and professionalism are treated as paramount and lauded, in this, the second year of the BAMA Awards. We are fortunate to be involved in an industry that is constantly evolving and growing and we can all take comfort in the fact that we are producing items whose format, despite increasing competition, continues to offer the best means of dispensing so many products in the market.

The views expressed here are those of the author and not necessarily those of BAMA.



## Long-Listed Entries

### Industrial Hydrocarbons, Inc.

A Fellowship set up at the University of Minnesota's Institute of Technology supports graduates involved in research related into the use of aerosols in consumer products and pharmaceutical applications.

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### Shell Gas

Three additional butane molecular sieves were added to Shell's road-loading terminal based at Cowdenbeath, Fife and a 24-hour operation from Sunday-Friday was introduced to improve efficiency.

#### For information:

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### Lindal Group

Lindal's Bi-Power valve is a new Metered Dose BOV valve working at 360° where no liquefied propellant is needed but dosing quality is consistent throughout.

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### Impress

Impress has a new health and safety initiative which resulted in the purchase of a fleet of counterbalanced trucks. The firm also supports a community programme locally.

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# The Award-Winners

## Economic Sustainability



### Unilever and Cascade Technologies

The judges were impressed with Cascade's new Micro Leak Detector technology to improve the current water-bath system for detecting leaks faster and more accurately on aerosol filling lines during manufacture. Unilever was able to provide the detailed performance specification, test the equipment and provide invaluable access to its production lines to ensure that the product developed by Cascade met the requirements in terms of capability, reliability and serviceability. The new system avoids expensive multiple sensor heads or keeping the filling line at a speed that plant operators can observe bubbles in a water-bath. The new system is now ready for market.



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### Impress

Impress was runner-up in this category for its Taft Hairspray Embossed Can. The product uses novel technology to provide an innovative pack that, the Company says, reflects the brand image and significantly enhances its shelf-appeal. The process 'debosses' rather than 'embosses' and this indenting the metal inwards means that its handling, filling and transportation characteristics remain unchanged. The debossing machine is fully integrated into the manufacturing line, so that normal line speed is unaffected.



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## Environmental Benefits



### Unilever, Alupro and BAMA for its 'Aerofoil Campaign'

Unilever in liaison with Aluminium Packaging Recycling Organisation (Alupro) and BAMA also won the Environmental Benefits category for its Aerofoil Campaign. Unilever is playing a major role in consumer education

don't forget...  
**to recycle**

**Empty aerosols can be recycled in your green bin.**

**Only recycle empty aerosols. Do not pierce or squash.**

To find out more visit  
[www.leeds.gov.uk/recycleforleeds](http://www.leeds.gov.uk/recycleforleeds)  
or call 0113 2224406

recycle for Leeds



and communication about aerosol recycling whilst its partners in the scheme – Alupro and BAMA – are encouraging more Local Authorities to recycle empty aerosols and aluminium foil packaging to the items to be collected – building on the long-term programme of work which BAMA has long and successfully pursued in respect of empty aerosol collection. The initiative had encouraged an additional thirty-seven Local Authorities to accept these items for recycling. The campaign is being executed through face to face meetings with Local Authorities and waste management companies throughout the UK. The UK is the biggest aerosol market in Europe, with consumers using approximately 600 million aerosols per year, accounting for some 30,000 tonnes of steel and aluminium. Fifteen years ago, Local Authorities were recycling just over a quarter of household rubbish (27 per cent) and yet fewer than 7 per cent of these included aerosols. Today, over 75 per cent of Local Councils now recycle aluminium and empty-aerosols at the kerbside. The Aerofoil campaign is timely and has gained impetus in light of the proposed packaging targets published for consultation in March 2010, which require 70 per cent of aluminium packaging to be collected for recycling by 2020.

For information: [www.aerofoil.org.uk](http://www.aerofoil.org.uk)



### Honeywell

Honeywell is a supplier of propellants and solvents to the aerosol industry. With the advent of global-warming based regulations in Europe, the aerosol propellant HFC-134a has been eliminated from novelty aerosols. Yet there remains a requirement for a non-flammable, liquefied gas propellant. Honeywell has developed a new propellant known as HFO-1234ze, an ultra-low global warming propellant which is suited for use as an alternative in aerosol formulations and is currently primarily used in novelty aerosols. It is classified as non-flammable and has good compatibility with plastics and rubber packaging.



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## Social Responsibility



Crown Aerosols UK



The panel welcomed the flexibility of Crown's Engineering Apprentice Scheme. Engineering skills are the lifeblood of Crown's organisation and vital to its sustainability. Nearly a quarter of the site's workforce are recognised engineers; however, the age profile of the workforce suggested a need to develop additional skills for the future. The re-launched Crown scheme encourages 'home-grown' expertise and utilises skills and experience from several departments within the Company as well as working with external professional bodies. It is open to new employees as well as those who have worked within the organisation for many years.

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Fillcare



A new Liquefied Petroleum Gas propellant storage facility has recently been installed at Fillcare Limited, manufacturers and packagers of personal care products, in South Wales. The Company, which has recently launched itself into the aerosol filling market, designed the facility to provide a long term, secure storage solution for the Company. The system has the highest degree of intrinsic safety, exceeding current statutory requirements and, the company claims, surpassing best practices. The design, construction and operations have been subject to Health & Safety Executive (HSE) scrutiny and the storage facility is now being cited in HSE's training programmes as an example of how a modern LPG storage facility should be built.

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BAMA is immensely grateful to all Awards entrants for their interest in the Awards and the high standard of entries and to the members of the Judging Panel for their time, insights and hard work.

For more information about aerosols and for details of aerosol fillers, marketers, component, machinery and ingredient suppliers or a list of BAMA publications, look on [www.bama.co.uk](http://www.bama.co.uk) or contact:

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## Other Aerosol News

### Melbourn launches new aerosol characterisation service



Potential inhalation of spray particles is one of the health risks that aerosol manufacturers have to assess following the update to the Aerosol Dispensers Directive, which came into force in April 2010. Manufacturers of personal and domestic aerosol dispensers are now required to perform a hazard analysis to demonstrate their understanding of the health implications of their products. To help companies meet this new requirement, Melbourn Scientific, with its knowledge of inhaled product development for the pharmaceuticals' sector, is introducing a suite of aerosol characterisation services to support the general aerosol industry.

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### Aerosol therapy helps kennel cough in dogs

Aerosol therapy, also referred to as a bronchodilator, is a system where medicine can be delivered directly to a pet's lungs. This by-passes the issue of having to either inject or orally feed the dog with medicine. Both of these means of delivering medication are acceptable for many dogs, but they are not viable options for dealing with severe cases of kennel cough. For this disease, it's much more efficient to pass the medicine that the pet needs directly to its lungs by means of a bronchodilator or an aerosol therapy machine. The aerosol therapy mechanism will take the liquid medicine and convert it into a gas. Users need to affix the mouthpiece of the machine of the pet's mouth so that the dog can inhale the medicine, ensuring that the medicine particles reach the lungs.

For information: <http://www.vetinfo.com/dog-kennel-cough-treatment-with-aerosol-therapy.html>

### Clothes may soon be available in aerosol

Tight-fitting t-shirts and hipster jeans could get even more snug if you could just spray them on. That idea is no longer a pipe-dream for fashion designers. A liquid mixture developed by Imperial College London and Fabrican allows the user to spray clothes directly onto his or her body using aerosol technology. After the spray dries, it creates a thin layer of fabric that can be peeled off, washed and re-worn. The spray-on fabric is lightweight and can be stored in the wardrobe with other clothes. The spray consists of short fibres that are combined with polymers to bind them together and a solvent that delivers the fabric in liquid form. The mixture evaporates when the spray touches the surface. The fabric is formed by the cross-linking of fibres, which cling to one another to create the garment. The spray fabric can be applied using a high pressure spray gun or an aerosol can.

For information: <http://www.fabricanltd.com/>