

There's green in Green

Contributed by Justin Lewis, Vacuumatic Ltd, 2007

The packaging and labelling industry is increasingly under scrutiny to ensure that its processes are as eco-friendly as possible. But whatever improvement techniques are introduced, argues Justin Lewis, Sales & Marketing Director of Vacuumatic Ltd, it takes time and teamwork to ensure full, effective implementation.

With environmental awareness growing and the scientific evidence for global warming piling up, it should come as no surprise that organisations and individuals are busy casting around for targets to which blame can be apportioned. From big oil and big manufacturing to anyone who drives their kids to school or heats their home, we are all guilty in the eyes of some. Right up there with the worst of them, apparently, is the packaging and labelling industry.

It's simple to understand why the industry has attained this pariah status: packaging is ubiquitous these days, by its design obvious, beautifully created and produced and very easy to think of as unnecessary - grist to the mill of the green lobby whose members would happily live in a world unable to distinguish their cornflakes from their washing powder.

But on the other hand, the constant demand of the average consumer is for more choice, and better informed choice at that. We want to be able to select the product we prefer from a range of alternatives and the Government wants us to know what they actually contain. Fat content, salt content, traffic light health indicators and, most recently, alcohol unit values now have to be present on packages and labels.

A faintly ironic additional twist now sees a number of major manufacturers and retailers such as Walkers, Boots and Tesco working with The Carbon Trust, planning to introduce carbon footprint data on their products in the near future. This information has to be printed somewhere so, despite the howls of complaint from environmentalists, it seems likely that packaging will be around for quite a while.

The reality is that in the future consumers will 'do their bit' for the environment by recycling and composting more of their refuse, by insulating their homes and by regularly checking their tyre pressures. Governments will want to be seen to be involved and will eventually introduce green legislation that rewards those consumers who recycle and punishes those who don't. In addition, there will be greater scrutiny and regulation of manufacturing businesses; those who are ahead of the game will reap the benefits.

Manufacturers involved in the packaging and labelling industry will find themselves increasingly questioned and will need to ensure that their processes are as eco-friendly and effective as possible. Newer, more efficient machines should be installed, factories will be designed with green issues in mind and the use of recycled paper and board will continue to grow. If manufacturers minimise their emissions and carbon footprint at source, their business and products will become something to shout about rather than hide, offering the potential to attract both clients and investment.

A first step to achieving this is the consideration of how best to minimise wastage, throughout the production chain. This need not be only in terms of final product, but within all stages of converting and laminating as well as printing and finishing. With equipment running at speeds of 600m per minute and above, the slightest fault or wrinkle can result in a significant length of waste material.

Waste production is triply expensive - you pay for the materials, you pay to run the machines and you pay to dispose of the spoil. This means that even the enviro-sceptics amongst us can see the potential benefits of waste reduction. Every metre or copy saved has a positive impact on the bottom line.

Of course, a lot of waste produced in any factory is an inevitable by-product of the manufacturing process. Make-ready and splices are clearly unavoidable but a significant proportion - often 10-20 per cent - of what is disposed of as waste is in fact perfectly sellable product. Operators, under time pressure and unable to accurately isolate an area of spoil, cut out and discard a length of product far in excess of the actual problem area. This is completely unnecessary; by optimising the production process this good product can be reclaimed.

It takes time and teamwork to ensure that whenever improvement techniques are introduced, full implementation is effective and calculable. The key to such change is the buy-in of the full production team of operators and management. Many operations discuss each step with their teams prior to moving forward; some even offer incentives to their staff in order to drive high impact results.

Technology is also important and to maximise results in the area of waste reduction, market leaders are investing in ever-improving web inspection systems. These units are camera controlled and capable of identifying errors and issues at extremely high speed. The ability to distinguish good product from spoil can greatly assist the production team in its efforts to improve efficiency.

The trick, however, is not just to know that the error exists, but to accurately isolate the spoiled section from the good product, ensuring that unnecessary wastage is kept to a minimum.

This can be achieved with the addition of a web marking device that fires adhesive tabs onto the web edge, without physical contact with the web itself. Operated either manually or from an automatic trigger signal from the inspection system, faults of all kinds can be identified, marked and separated from good product. The benefits are immediate. Unnecessary waste is reduced significantly; productivity increases and subsequent finishing processes become more efficient.

Web inspection and marking systems are good value. Compared to the cost of the press or converting machinery the price is relatively minor and once operational the return on investment can often be measured in months rather than years.

The packaging and labelling industry is extremely competitive. Margins are tight, run lengths are shrinking and end users demand late changes and ever shorter delivery times. Simple, cost-effective steps that reduce waste and emissions while improving productivity and the bottom line should always be considered. In both the immediate and long-term future, any process enhancement that can be applauded by both shareholders and environmentalists is likely to be good for business.