

## - EPA GREEN PRINT & PACKAGING PROGRAMME -



**Chesapeake Pharmaceutical and Healthcare Packaging** has over 10 manufacturing facilities in Ireland and the UK that provide tailor-made packaging materials for pharmaceutical clients worldwide.



The facility in Westport, Co Mayo, prints pharmaceutical leaflets and booklets, mainly using modern web-fed offset lithographic printing equipment. The company also has guillotine, folding, binding and stitching facilities to provide a complete service.

### Existing Good Practice at the Westport Facility

As the Chesapeake environmental mission statement sets out, the company takes its environmental responsibility seriously. Prior to the involvement of Greenbusiness, the company had already implemented a wide variety of actions to improve environmental performance, including:

- Installation of digital plating machines in 2007, providing Computer-to-Plate systems. This has resulted in the elimination of film, developer chemicals and a significant reduction in water usage.
- Recycling of used aluminium printing plates.
- Minimisation of ink use. The ink is delivered in small 2.5 kg ink tins; ink unused on presses is recovered back into the ink tins using ink scrapers.
- Use of low VOC oil-based inks only.
- Use of bespoke sheet sizes where possible to reduce paper wastage.
- Installation of a camera system on the binder to allow the job bar code to be placed on the edge trims of print runs. This has reduced wastage longitudinally between printed areas from 21mm to 12mm.
- Installation of interlocks between the binder (milling) and dust extraction to prevent one system being on without the other, thus producing electricity savings as well as improving health & safety.

**"We have a company culture that promotes environmental awareness, consideration and responsibility"**

- Chesapeake Pharmaceutical and Healthcare Packaging

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- Installation of timers and thermostats on space heating; maintaining room temperature at an optimum 18<sup>0</sup> Celsius.
- Use of low IPA (industrial alcohol) levels on fountain/dampening solutions; just 5% to 7% on the newer colour presses and 12% to 15% on the older 2 colour presses.
- Multiple re-use of rags, via a third party, to clean down printing presses.
- Programming of print runs to consider change of colours, dedicating specific print stations to similar colours, where feasible.
- Installation of T5 energy efficient lighting throughout the manufacturing floor, with reflector fittings.
- The use of occupancy sensors in certain parts of the facility, for example in some office areas, corridors and storerooms.

### Greenbusiness Suggestions to Further Improve Efficiencies Onsite

The site visit to Chesapeake in February 2012 incorporated a detailed Resource Efficiency Assessment (REA), focussing on waste minimisation, raw material optimisation and energy minimisation. Water efficiencies were not reviewed, as minimal water is used in the operations at Westport.

The key REA findings in relation to further potential resource efficiency improvements are listed below:

- Reduce make-ready paper waste by using historic or stored print production data for repeat job runs and by introducing a sheet-use Key Performance Indicator (KPI) in addition to the current Make-Ready Time KPI.
- Reuse slightly marked sheets in makeup runs, to reduce the amount of virgin paper wasted.
- Introduce a dual system that allows the gumming and re-use of frequently-used aluminium plates, single-use being restricted to plates that are used irregularly.
- Consider replacing primary colour plastic cartridges with inks supplied in tins, as this would reduce ink wastage and plastic waste arisings.
- Consider sourcing a reusable plastic guide foil for the ink feeds, as the current system allows only single use of foils.
- Invest in a 30 kW variable speed drive compressor, to allow more efficient energy usage.
- Consider ducting compressor heat into the production hall in winter to reduce other space heating requirements.
- Consider replacing existing inefficient stand alone boiler/warm air cabinets, which struggle to heat the entire workspace, with directional radiant heaters that aim to heat up people.



**Potential savings of  
> €140,000  
identified through a  
range of resource  
efficiency measures**

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- Install variable speed drive motors to pneumatic extraction fans, allowing lower levels of air extraction when there is unused equipment and ducting that can be 'damped' (i.e. closed). This could potentially save ~7kW where 2 out of 6 machines are not operating.
- Experiment with the adhesive container on the binder to assess whether this can be run-down to a low level before the 12-hourly refill. This could potentially reduce adhesive use by ~1250 litres per year.
- Investigate printing addresses directly onto cardboard box packaging, rather than onto additional (unnecessary) labels.
- Investigate reuse of pallets, for example through a lease system such as CHEP.



## Saving money through improved resource efficiency

To request your own Resource Efficiency Assessment:

- ❖ Contact us now at [www.greenbusiness.ie](http://www.greenbusiness.ie)
- ❖ E-mail us at [contactus@greenbusiness.ie](mailto:contactus@greenbusiness.ie)
- ❖ Call the Helpline on 1850 473361 (1850-GREEN1)

Our staff are waiting to help