

Staffordshire Business & Environment Network Business Case Study

Packaging Eco-Design Case Study WWRD United Kingdom Limited

Business benefits:

- ✓ Reduction in virgin packaging materials used
- ✓ Reduced transit packaging used for packaging delivery
- ✓ Reduced transport and delivery costs
- ✓ Increased recyclability
- ✓ Easier pack construction and handling characteristics



Packaging Resource Efficiency:

The ultimate aim in designing packaging and product systems is to minimise the use of resources and the overall burden on the environment throughout the product life-cycle

(www.envirowise.gov.uk/GG908).

This packaging case study provides an overview of how WWRD United Kingdom Limited has achieved packaging efficiency savings through the re-design of their Monique Lhuillier and Royal Doulton packaging.

Background: WWRD use a high quality luxury gift box designed in the US for dual branded Monique Lhuillier and Royal Doulton products. The gift box was manufactured in China and then imported flat packed to the UK for warehousing operations.

Following its introduction into the company there were a number of H&S issues reported from warehouse operatives constructing the box. This prompted the UK operations to investigate the opportunity to re-design the box, therefore alleviating the H&S issues whilst at the same time identifying opportunities to make both financial and environmental savings for the company.

Packaging Working Group:

The company set up an action improvement team comprising Marketing, Procurement, HSE, Quality, Warehouse Management, and Packaging Operators to look at the H&S, environmental aspects, quality and cost.

The action improvement team identified that the existing packaging had a number of negative aspects including:

- Construction design. The existing box was difficult to erect, partly due to double facing of laminate (poor dead fold characteristic) - energy in board - resistance to fold
- Manufactured from a number of different virgin boards and therefore the print is on different substrates causing colour control issues
- OPP (oriented polypropylene) laminate on both sides making it difficult to recycle
- Glues used during manufacture of certain 'inners'

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- Logistical issues regarding lead time due to sea freight. Therefore large volumes ordered causing storage issues
- Significant transit packaging used for delivery to point of use
- High cost and carbon footprint

Packaging Solution:

The company subsequently met with a number of UK based packaging manufacturers to design new packaging that matched the positive attributes of the existing packaging, such as visual appearance and product protection properties, but also addressed all of the negative findings.

The result was new packaging that more than met the objectives and provided the following benefits:

- New packaging has a reduced virgin material content
- Use of finer fluting reducing the quantity of packaging (weight) without loss of strength - reduction in overall packaging.
- New design is OPP laminated and printed on one side only, thereby offering more channels for recycling and reuse.
- New construction design and single sided OPP lamination results in easier pack construction and better "dead fold" characteristic – no H & S issues and quicker packaging operation.



- No deterioration in visual luxury appeal - use of "loose" insert card in base and lid maintains overall printed liner image but is achieved with single sided print.



- Lead time reduced – UK packaging supplier close to point of use - no sea freight and opportunity to reduce stock holding (re order level can be reduced as replenishment time is shorter).
- Reduced transport and delivery costs to point of use.
- Overall reduction in cost of approx. 7% due to reduced transport and delivery costs, reduced printing, no glues used, more efficient packing, etc,

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Conclusions:

The new packaging has now been introduced and is proving to be a success, not just in terms of reduced costs, but also in terms of its H&S improvements and environmental benefits. The company is now considering how this approach can be applied to other product packaging lines across the business.

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