CASE STUDY

OPERATIONAL NECESSITY

MANUFACTURING

# HOW A THOUGHTFUL, REUSABLE PACKAGING DESIGN REDUCED DAMAGES AND INCREASED EFFICIENCY IN THE DISTRIBUTION OF TRUCK LIGHTS

**THE CLIENT**
A manufacturer of truck and trailer lighting

**PROJECT CLASSIFICATION**
› Efficiency

**PROJECT OVERVIEW**
Design of reusable packaging for the protection of delicate, custom-made truck lamps

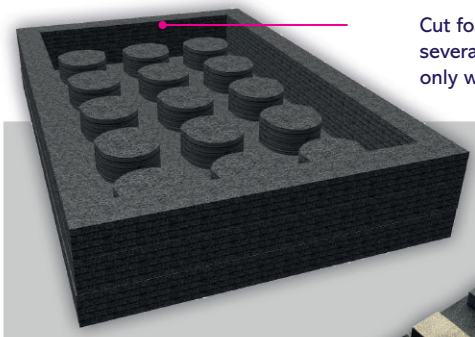
## THE CHALLENGE

**The client manufactures two kinds of custom-made truck lamps, one round and one rectangular in shape, which are shipped to an external finisher before being returned and placed into storage. To avoid damage to the reflector, the lamps can only be touched at designated points, which proved a challenge when it came to packing them ready for transit.**

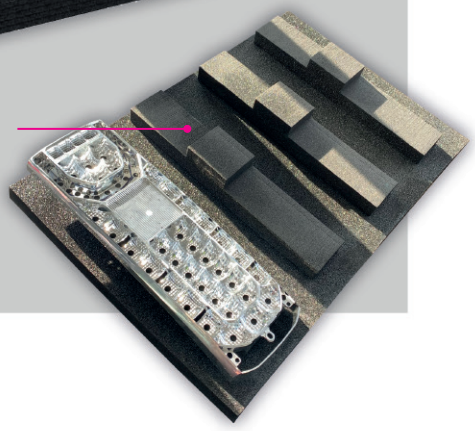
Prior to contacting Antalis, the lamps were packed into polythene bags and then placed loose into a box. Unsurprisingly, damages stood at a high 30-40%. They approached Antalis to help them find a packaging solution that would provide adequate protection while ensuring minimum contact.

## THE ANTALIS SOLUTION

**Bespoke packaging design comprising laser-cut foam and a corrugated board outer carton.**



Cut foam securely and safely holds several round lights, making contact only with the safe touchpoints.



Making contact only with the designated touchpoints, a foam base layer supports the lamps while the top layer provides further protection.

Five layers of the lamps are packed into the bespoke outer carton.

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## THE PROCESS

**Using a clear framework, the Antalis packaging team set to work developing a solution:**

**1. Explore** A site visit was carried out to gain a clear understanding of the challenges faced and of the scope and scale of the requirement. The two lights, one long and rectangular and one round, can only be touched at specific points to avoid damage – if the surface is touched outside of these points the lights won't work properly. It was therefore important that any new packaging proposed would provide optimum protection with minimum contact. Samples of the two lights were taken back to the Antalis Smart Packaging Centre to help in the development of a design and prototype.

**2. Propose** Reusable packaging inserts made from a reusable, strong and hardwearing foam that bounces back into shape. For the rectangular light, foam was cut to fit the touchpoints, providing protection to the top and bottom of the light with minimal contact. The lights are packed in layers in a bespoke corrugated box. Similarly, the round lamps are packed into a foam tray with circular columns that securely hold and support the lamps from underneath; the trays are then stacked inside a bespoke corrugated box.

**3. Test** The prototype was tested successfully and the client delighted with the result.

## THE SUMMARY

| CHALLENGE | GOAL | SOLUTION | BENEFIT |
|---|---|---|---|
| Protection | Reusable packaging that would provide optimum protection using minimum touchpoints | Bespoke foam packaging inserts with corrugated box outer | Easy to pack<br>Reduction in damages<br>Reduction in materials used<br>Increased transport efficiency |

## ADVANTAGES OF THE SOLUTION

### EFFICIENCY

Reduced packing time.

### ENVIRONMENTAL

Reusable material.

Minimises use of materials and waste.

Minimises damages.

### COST-SAVING

Reusable so less material used.

Reduction in product damages.

Reduce delivery costs because more products can be packed per box and onto vehicle.

**Alan Stanley, Account Manager - Antalis Packaging**

**"This was a complex design brief. Coming up with a packaging design that would provide sufficient protection while using minimum touchpoints was a real challenge for the design team at the Antalis Smart Packaging Centre, but there is no doubt that they were equal to the task. The client was delighted with the result, especially with the fact that the packaging is reusable, which helps to further improve their environmental footprint."**

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