



Engineering a Safer, Cost-Effective Solution for Traffic Cone Refurbishment

Challenge

Over time, VOCON's in-house stock of traffic cones had begun to suffer from a common problem.

The heavy rubber bases were starting to detach from the cone bodies. Exposure to extreme weather conditions and damage from daily site activities can cause the cone and base to become disconnect from each other. Reattaching the two components manually can be dangerous due to how heavy the bases are. To reattach there is a 'lip' in the cone which must be pushed into the base with force.

VOCON needed to look into a way to reattach cones in a safe and cost effective way.

PROJECT DESCRIPTION

Without the base securely attached, cones lose their stability, increasing the risk of them blowing over, shifting into traffic lanes, or failing entirely in high-wind conditions. This not only created a safety hazard for road users and work crews, but also meant the cones no longer complied with BSEN 13422 and Chapter 8 requirements.

Full replacement was possible, but it would have been expensive, time-consuming, and environmentally wasteful.



Case Study

Traffic Cone Refurbishment

Action

VOCON developed a dedicated refurbishment programme focused specifically on restoring cones and bases. Each cone was inspected for cracks or other damage, with unrepairable units sent for recycling.

A bespoke cone repair machine was designed and built in-house to securely fix detached bases back to their matching cone bodies.

Once reattached, cones were deep-cleaned to remove dirt, tar, and paint, and fitted with new Class R2 or R1B reflective sleeves to restore full day and night-time visibility.

The Results

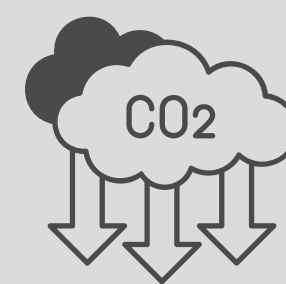
The programme successfully restored the stability and compliance of VOCON's cone fleet. Every refurbished unit passed weight, stability, and visibility checks before returning to service. The repair work **doubled the expected service life** of the cones, cost around **65%** less than replacement, and diverted over **13 tonnes of waste** from landfill.

By tackling the base detachment issue with a purpose-built machine, VOCON eliminated a significant operational risk, improved road safety, and reduced both financial and environmental costs.



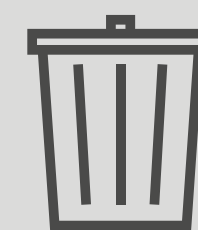
IMPACT

VOCON have restored over 2000 cones using this new bespoke machine between January - June. This has saved:

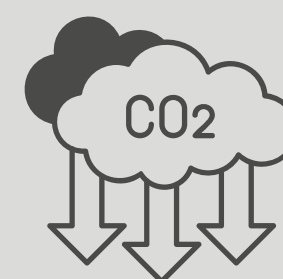


5.2T of
CO2 Emissions

On average, we fix between 200–400 cones a day when the machine is in use between our Midlands & Yorkshire depots saving:



2.6T of
Landfill Waste



1.4T of
CO2 Emissions