

Steps taken to minimise the carbon footprint of the business and/or employees

Kleen Strike UK Ltd has been trading in Rochdale since 1983. We remanufacture high quality, best value, environmentally friendly laser printer toner cartridges that are legally placed on the market. We offer only quality assured toner cartridges, drum units and other printer consumables as well as indemnifying printers using our cartridges.

We are ISO14001 and ISO9001 accredited guaranteeing the best in quality, yield and reliability. With our Investors in People recognition it has improved our organisational performance by understanding the importance of such key factors as quality, customer service, and cost effectiveness through our team contributions.

We can contribute towards reducing a company's carbon footprint by one simple action – using our locally remanufactured toner cartridges.

Kleen Strike brand remanufactured toners saves a minimum of 3 kg of CO₂ that equates to a savings of 60% in greenhouse gas emissions. The primary manufacturing and carbon cost has been eliminated, as well as reducing emissions by purchasing from a local remanufacturer - the best environmental solution.

When Kleen Strike first began, we refilled ribbon cassettes with freshly inked ribbon. By reusing the cartridge saved a tremendous amount of waste from being landfilled especially with the biodegradable life of plastic being in excess of 100 years. When toner and inkjet cartridges replaced ribbons as the primary method of printing we began remanufacturing toner cartridges and refilling inkjet cartridges that again reduces waste by reuse. Even the waste toner taken from used cartridges received in for remanufacture is recovered for reuse in the dye and building industry. Any damaged or unusable toner cartridges, components and cases are sent for material recovery making our goal towards zero landfill further reduced.

Steps taken to reduce the use of resources:

- Light fittings are low energy T8's with a predicted life of 9000 hours
- The toilet cisterns are dual flush to reduce the amount required per flush
- The Save-a-Flush system is used in toilet cisterns saving 1.5 litres per flush
- Heating of the building has changed from old and inefficient electric storage heaters to a new gas central heating installation
- Thermostats have been installed to make the heating system more intelligent
- A double door system is used at reception and goods in. The idea is that both doors should never be open at the same time so cold air entering the building is limited.
- Paper towels have been removed from the toilet area and replaced with an energy efficient hand dryer
- Work has been carried out on the roof system to increase its heat retention properties
- Sound proofing has been carried out between Kleen Strike and the adjacent unit; the knock on effect is increased insulation and heat retention
- Reduction of energy consumption during winter months by lowering thermostats on heaters.
- Ensuring that all machines and equipment are switched off when not in use and at night and weekends.
- Reuse of materials for other purposes
- Printing on both sides of paper
- Fitting of tap aerators to reduce water flow
- Printing with remanufactured cartridges all our own labels and courier labels
- Reusing shredded paper, cartons and packing materials
- Implementation of packing cartons which are used for multiple trips between customers

In January 2013 Kleen Strike decided to move from it's old, large and poorly insulated premises to a modern, well-insulated, smaller business unit with improved infrastructure and work environment. The

effects of this are already becoming apparent; for example electricity usage January to September this year is 25% down on usage in the same period in 2012.

Our business model is based on offering low carbon strategies through the use of our remanufactured products and services. To achieve a more efficient low carbon strategy within our own company and to demonstrate continual improvement we will:

- Carry on disclosing our carbon emissions through the Carbon Disclosure Project
- Follow the guidelines pertaining to the ISO14001 environmental certification undergoing regular surveillance visits.
- Continue to follow the Investors in People framework for continuous improvement of our company's performance.

In reducing our own carbon impact, we will continue to ensure:

- Waste toner removed from used cartridges is sent for material recovery and not landfill
- End of life components and cartridges are sent for material recovery
- Returnable/reusable toner bubble bag are used in our cartridge packaging in order that used toner cartridges can be returned undamaged and in turn the bags can be reused carrying a newly remanufactured toner

Future resource efficiency measures are:

- Introducing the reusable toner cartridge carton with a tab/lock system for reusable packaging
- Continue to separate all paper and card for recycling and reusing cartons and packaging materials
- Print duplex or reuse one-sided printed-paper in our fax tray or copier for non-essential documents
- Reduce printing by no longer printing out hard copies of purchase orders and as much as possible sending order acknowledgements, invoices, payments electronically
- Reduce fuel consumption on our delivery journeys by efficient route management.

Our remanufactured cartridges were submitted in the first ever carbon footprint study for remanufactured toner cartridges. The conclusion demonstrated the positive impact in carbon savings by multiple life cycles of toner cartridges. [1] We have also modified our remanufacturing strategies following a unique quality control and assurance system implementing our own advanced remanufacturing practices. By following documented instructions and procedures we are able to achieve best practice in our remanufacturing process as well as extend cartridge life cycles. We have achieved this by extending the life of many components within the cartridge itself. Such measures have reduced the carbon footprint of our cartridges by up to 60% from a newly produced cartridge.

[1]Carbon Footprints and Ecodesign of Toner Printer Cartridges; Dr, Michael Gell, Xanfeon Energy & Environmental Services; Dec 2008.

Steps taken to protect and support the environment eg using sustainable materials,

Member of 'UKCRA' (UK Cartridge Remanufacturing Association) – www.ukcra.com

We meet the strict standards and criteria of UKCRA providing the printer user with proven high quality products that are a cost effective, environmentally friendly alternative to imported cartridges

The service we offer is unique. By using our own locally remanufactured cartridges and refurbished printers and repairs we are reducing our customer's carbon footprint. We offer an annual certificate of the substantial CO2 reductions they have achieved by the purchase and use of remanufactured cartridges and reconditioned printers. This encourages our customers to appreciate the environmental advantages in reducing their own carbon impact.

Our products enable customers to avoid ghg emissions, because remanufactured cartridges have a lower carbon footprint compared with new cartridges. The avoided emissions for each cartridge are approximately 4.3 kgCO₂e. Kleen Strike remanufactures approximately 12,500 toner cartridges each year and so the avoided emissions that Kleen Strike enables users to achieve is $12,500 \times 4.3 \text{ kg CO}_2\text{e} = 54 \text{ tCO}_2\text{e}$.

Each year Kleen Strike repairs about 500 laser printers and 25 inkjet printers. These repairs take place both on-site (about 1/3 at Kleen Strike premises) and offsite (about 2/3 at the user premises). Making the assumption that each repair enabled the user to avoid having to purchase a new machine, an estimate for the avoided emissions enabled through Kleen Strike's printer repair service amounts to 74 tCO₂e (laser printers) and 2 tCO₂e (inkjet printers), giving a total avoided emissions of 76 tCO₂e. This figure excludes transport and parts emissions incurred by Kleen Strike for each repair task.

The total emissions which Kleen Strike enables users to avoid through cartridge remanufacturing and printer repair services amounts approximately to $54 + 76 = 130 \text{ tCO}_2\text{e}$. This outweighs the emissions of Kleen Strike (35 tCO₂e) by approximately 95 tCO₂e. Thus, the net environmental benefit that Kleen Strike provides to its customer base is the capability to avoid 95 tCO₂e per year.

Instigating an in-house recycling programme

Recycling of:

- Paper and card

Re-using of:

- Cartons and packaging

Steps taken to support their local community

Kleen Strike has also been involved in many local initiatives. These include:

- Short-listed for the Rochdale Business Awards in the category of the Environment.
- Commissioned a white Paper (published in the September 2011 issue of The Recycler Magazine) to help educational establishments understand the impacts in using 'new' vs. 'remanufactured' and make a qualified decision in the area of what printing option is the most environmental, economical and tailor made for them.
- Offering our customers an annual certificate on the CO₂ savings they have gained by the use of locally produced remanufactured toners and printer repairs through life extension.
- Supporting community and sports sponsorships.
- Offers a local used cartridge collection and recycling service.
- Providing guidance to local businesses and charities regarding sustainable and cost effective printing opportunities.
- Supporter of 'Waste Watch' and 'The Green Initiative'- Supporting their initiative on the benefits of re-use and recycling encouraging their request for a program of action by the government of 'less waste-more value'. Financial contributors to many charitable institutions over other cartridge brokers.
- 'Buy Recycled' and Create Jobs for your community. No original laser or inkjet printer cartridges following extensive research are known to be produced in the UK - Buying alternative printer cartridges supports UK employment and your community.

Our Directors have actively participated in the local community by attending our local council's meetings, workshops and events.

Best practice in promoting sustainability across the business

Kleen Strike has supported a number of initiatives including:

‘A Way With Waste’ Government Strategy -‘Supporters of Local Agenda 21’–

Since 1983 we have offered the option of ‘Best Value’ and all the environmental benefits that this encompasses.

“Design it to be Durable, Design it to be Recyclable”- Mike Childs, Friends of the Earth.

Europe’s landfill sites are running out of space. To handle the demands of the future, wide ranging measures are now being drawn up of which we have been instrumental in over 30 years in keeping tons of waste toners, ribbon cassettes and inkjets from the waste stream. The best value option is not necessarily the cheapest.

It is our firm belief that the best thing a business can do is to lead by example so that improvements can be achieved not only inside the organization but also to encourage and help other organizations to make similar improvements. To this end we have participated as a stakeholder in a wide range of environmental National, European and International initiatives to raise the bar in environmental stewardship.

Kleen Strike has been ISO 9001 accredited since 1997 and ISO 14001 accredited within the last 4 years.

Kleen Strike has a zero landfill policy. The company’s aim is to keep as many materials, components and cartridges re-circulating in the economy as possible through high quality remanufacturing. The more that materials and components are reused, the fewer virgin materials are required to make new products. In our remanufacturing operation, all residual materials which can no longer be put to productive use are dealt with in as environmentally and responsible manner as possible. We continue to seek productive uses even for waste materials that would traditionally be discarded. For example:

- End of life components and broken and unusable cartridges are palletised and transported to a qualified recycler with waste management licenses in place for material recovery and not for landfill.
- Waste toner removed from spent cartridges is collected in specially made Bulk bags and transported on a pallet crate for material recovery by the dye and building industry.

Our business transport is kept to a minimum and delivery and collection of cartridges is planned intelligently so as to be as fuel-effective as possible, within the constraint of maintaining good response times to customer requirements.

In the interests of transparency, Kleen Strike has participated in the Carbon Disclosure Project (www.cdproject.net) and has measured and disclosed both its operational greenhouse gas (ghg) emissions as well as the embodied ghg emissions of remanufactured cartridges.

Because of our commitment to our Industry and encouraging printer users on the virtues of reuse over recycling (crushing) and landfill, we have been at the vanguard of many industry and global initiatives:

- Involved as a stakeholder during the entire development process of the EPEAT 1680.2 standard on Imaging Equipment, adopted in over 40 countries Worldwide.
- Active in recent recast reviews of the WEEE Directive to encourage the reduction of printer cartridges to landfill through our local MEP.
- Contributed as a stakeholder to the ‘Revised Sustainable Procurement Guidelines for Toner Cartridges – prepared by ICLEI for UNEP-DTIE (United Nations Environment program, the Division of Technology, Industry and Economics.)
- Worked successfully to seek a change in EU policy which has resulted in the inclusion of remanufactured toner cartridges in EU procurement guidelines

- Contributed as an industry expert to the review of the Nordic Swan Eco-Labeling on toner cartridges

Steps taken to raise awareness of environmental issues affecting their sector eg use of staff bulletins, encouraging staff initiatives

The Managing Director of Kleen Strike is active in bringing recycling issues to prominence by publishing in local newspaper features as well as UK and USA recycling publications.

What also makes us different from other companies is our leadership in global environmental issues. We have been active or taken part as a stakeholder in such initiatives as the development of a new environmental standard for imaging equipment (EPEAT) along with Defra and the USA's Environmental Protection Agency; contributed to the revision of the United Nations Environment program (UNEP) for toner cartridge purchasing guidelines; contributed wording regarding reuse in the WEEE Directive recast review via MEP Chris Davies; and successfully encouraged the EU Parliament to include remanufactured toners in their procurement tenders. The significance of EPEAT is that any printer placed on the market carrying the EPEAT logo must follow a set of criteria and one of the required criteria is that it will function with the use of a remanufactured toner cartridge as well as the new one.

All staff have received Environmental Awareness Training and are encouraged to suggest and take part in environmental improvements.

Data gathering and communication

Every month data is captured regarding the use of:

- Water
- Gas
- Electricity
- Road fuel

The figures are graphed and compared to the previous years data. Staff are briefed every month regarding the amounts used.