

Sharpsmart

Sustainable Solutions

Safer. Simpler.
Smarter. **Greener.**



Putting the environment first.

Sharpsmart is a company committed to ecological sustainability and safe environmental practices. All Sharpsmart products and waste processing solutions are designed and engineered for minimum environmental impact. By harnessing innovation and efficiency-driving technologies, we continue to refine our treatment and handling methods to reduce the amount of waste going to high temperature incineration every year.

SHARPSMART: REDUCING LANDFILL AND CARBON EMISSIONS

Since its inception, Sharpsmart has focused on the fundamental importance of environmental safety. Designed as a sustainable alternative to disposable containers, the reusable Sharpsmart reduces significant volumes of plastic and cardboard from the sharps waste stream.

A study conducted in an 850 bed acute care facility in 2012 examined greenhouse gas emission (GHG) comparisons between disposable sharps containers and Sharpsmart reusable collectors. The results were unprecedented, revealing an 84% reduction in carbon emissions; equating to 93 metric tons per annum.

Further results from the published journal study showed:

"The 84% reduction of CO₂eq emissions with the Sharpsmart system exceeds the 2020 reduction target for US federal hospitals and the 2050 target for UK NHS hospitals. If Sharpsmart reusable sharps collectors were used nationally in the US, we estimate annual US hospital GWP would fall by 64,000 MTCO₂eq."*

**TERRY GRIMMOND
& SANDRA REINER**
WASTE MANAGEMENT
& RESEARCH 2012;
30-639-642

*Sustainability and Safety -
A rare combination in
sharps containment

100%

Reduction in the number
of sharps containers
landfilled per annum

57%

Reduction in
disposal-related
sharps injuries

92.8%

Reduction in the manufacture
of sharps containers per annum

97.6%

Reduction in the
weight of cardboard
landfilled per annum

99.6%

Reduction in the amount of
plastic landfilled per annum



Why are reusable sharps container better for the environment?

As healthcare facilities across the United Kingdom increasingly focus on reducing the environmental impact of their waste streams, it is vital to understand the difference between disposing of sharps waste in 'reusable' collectors vs. 'disposable' or 'recyclable' containers.

ENVIRONMENTAL HARM OF REUSABLE COLLECTORS



The most environmentally-friendly collectors for disposing of sharps waste from healthcare facilities are those that are able to be reused many times during their lifetime.

Why?

When a reusable collector is filled, only the waste inside it is destroyed, lessening the environmental impact of discarded plastic and cardboard being sent to landfill. The used collector is hygienically washed and returned ready for the next use.

Each year, for every 100 occupied beds in UK healthcare, the Sharpsmart reusable sharps collector:

- Reduces plastic waste by **3,175 kgs**
- Reduces cardboard waste by **326 kgs**
- Eliminates the manufacturing and landfilling of **4,691** disposable containers

DATA EXTRACTED FROM PEER REVIEWED, PUBLISHED STUDIES.
Terry Grimmond Microbiologist | FASM, BAgSc, GrDpAdEd

ENVIRONMENTAL HARM OF RECYCLED CONTAINERS



While the concept of recycling has received a lot of positive attention in recent years, the process is not as simple as it appears and can result in a negative environmental impact.

Why?

Generally, recycled plastic comes from 'safe' sources such as soft drink bottles. In order to avoid issues of potential contamination and to maintain product strength and integrity, only about 10% of recycled material is used when producing new plastic items.

If used sharps containers were to be utilised as a source of recyclable plastic, a safe method of opening and handling the contents would be required. In addition, containers would need to be cleaned to a standard that recyclers would accept. Such a process would involve a significant amount of energy and materials and would still require a large amount of new plastic to make new containers.

ENVIRONMENTAL HARM OF DISPOSABLE CONTAINERS



Disposable sharps containers are destroyed along with their contents. As a consequence, they are the least environmentally-friendly method of handling sharps waste.

Why?

A disposable container has twice the negative impact on the environment:

The disposal process uses valuable energy resources when containers are treated (commonly via incineration or autoclaving), in addition to their waste contents. Furthermore, the containers also add to the volume of residual material that ends up in landfills.

For every disposable container that is used, another new container must be manufactured as a replacement. This process requires a completely new allocation of materials and additional energy resources.

Each year in the United Kingdom, the Sharpsmart reusable collector:

- ▶ **Reduces plastic waste by 435,000 kgs,**
- ▶ **Reduces cardboard waste by 69,000 kgs,**
- ▶ **Eliminates the manufacturing of 973,000 disposable containers.**

DATA EXTRACTED FROM PEER REVIEWED, PUBLISHED STUDIES | Terry Grimmond Microbiologist | FASM, BAgSc, GrDpAdEd



Minimising Landfill

CLINISMART: WASTE SEGREGATION OPTIMISATION

The Clinismart is the first range of clinical waste containment systems in the world which actively protect against infection risk and proactively assists in positive waste segregation. The bagless reusable IN64 collector offers a unique paradigm shift in environmental consciousness; altering human behaviour defaults towards the disposal of waste through the collectors' engineered functionality, differentiating aesthetics, and point-of-use accessibility.

A Peer Reviewed study conducted at a large private hospital demonstrated the Clinismart achieving unprecedented environmental-burden reducing outcomes:

CLINICAL WASTE
MASS REDUCTION OF

53.2%

CLINICAL WASTE
VOLUME REDUCTION OF

65.2%

The combination of being positioned exactly at point of waste generation, together with its easily identifiable colour coding, labeling and aesthetics, gives the Clinismart system an unparalleled advantage in waste segregation, staff safety and environmental impact reduction.

CLINISMART **IN64**





OUR ECOLOGICALLY SUSTAINABLE TECHNOLOGY

WASHSMART

Groundbreaking in its engineering, the Sharpsmart Washsmart has been designed to achieve the highest levels of safety, environmental sustainability and decontamination attainable in a robotic washing process. Proven results in peer reviewed studies show its environmental burden to be dramatically less than any other waste container washing process.

“The Washsmart cleaning process was independently tested by coating Clinismart bins with 6-log blood suspensions of *Staph aureus* and *E. faecalis*. On swabbing them after the wash, no challenge organisms were detected – this is a very high level of decontamination.”

TERRY GRIMMOND

Microbiologist | FASM, BAgSc, GrDpAdEd



“From switching over to the Sharpsmart reusable system : in a 12 month period, we reduced our Clinical Waste by 58%. That in turn, saved our organisation over

£10,000”

STEVE EGBERT

CHESP | General Manager
Sodexo, Crittenton Hospital Medical Centre



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