

# Making Healthcare Safer & Our Environment Greener

Daniels Sharpsmart system is arguably the world's safest and most environmentally responsible sharps management system

## Reusable reduces environmental impact & cost



Reusable means, quite simply, that containers are reused and not discarded in landfill. For the user and the environment, the benefits are trifold - diversion of non-biodegradable plastic from landfill, eliminating manufacture and purchase of new containers, and the supply of collectors fully assembled, and free of harmful chemical residue.

With safety as our primary driver, Daniels have invested millions of dollars in R&D to develop world-leading robotic cleaning technology that achieves the highest levels of bacterial load reduction. Our 10-stage decanting, washing and decontamination process eliminates microbial contamination and ensures that all collectors entering a sterile environment are rendered free from contamination.

## Safer and more secure for staff & patients



Daniels Sharpsmart container systems are rated the safest containment systems in the world. Designed with 13 safety features including a secure-action safety tray with restricted hand access, and in-built secure locking mechanisms to prevent access to contents; the safety-engineered design of our containers are unrivalled in preventing sharps injuries and protecting the safety of staff and patients.

Complementing our containment systems; Daniels' versatile mounting and movement solutions enable point-of-use disposal, and significantly reduce cross-contamination and pathogen exposure.



**Each year**, for every 100 occupied beds, the Daniels Sharpsmart reusable collector:

- ▶ Reduces plastic waste by **7,000 lbs**,
- ▶ Reduces cardboard waste by **720 lbs**,
- ▶ Eliminates the manufacturing of disposable containers by **4,691 units**.



# Why are reusable sharps collectors better for the environment?

As healthcare facilities across Canada 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



## ENVIRONMENTAL HARM OF RECYCLED CONTAINERS



## ENVIRONMENTAL HARM OF DISPOSABLE CONTAINERS



The most environmentally-friendly containers 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, the Daniels Sharpsmart reusable sharps collector:

- Reduces plastic waste by 7000 lbs
- Reduces cardboard waste by 720 lbs
- Eliminates the manufacturing and landfilling of 4691 disposable 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 utilized 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.

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.