



MAKING WASTE MANAGEMENT Smart | Sustainable

www.smartsustainable.co

The Bigbelly Solution

COMPACTOR

holds 8 times more than traditional bin



NOTIFICATIONS

automated alerts, collections on demand



SAFETY

hopper prevents unwanted access by scavengers



RECYCLING

multi-stream configuration for waste separation



HYGIENIC

enclosed design limits odours and pests



AESTHETICS

no overflowing and no visible waste



ACCOUNTABLE

measure results, align with ESG goals



ANALYTICS

data-driven analytics to boost operational efficiency



SC5.5 Smart Non-Compactor Bin

- capacity up to 190ltr
- battery powered
- fullness sensing
- onboard GPS
- durable and street-tough
- enclosed hopper design



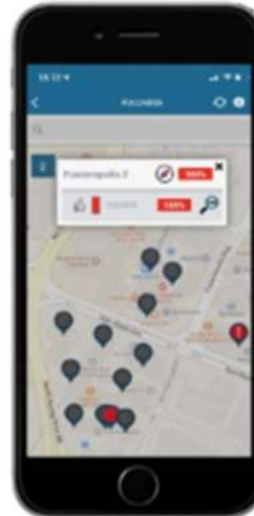
HC5 Smart Compactor Bin

- capacity up to 1000ltr
- solar or A/C powered
- fullness sensing
- onboard GPS
- durable and street-tough
- enclosed hopper design



Smart Multi-Stream Companions

cost-effective and additive. configurable to any recycling stream. boosts solar power to support other cable-free Internet of Things solutions outdoors. compatible with both HC5 and SC5.5



- Fully integrated system with web-based dashboard
- Station Status, Fullness Levels, Asset Fleet Management, Automated Alerts, Notifications, Trigger Workflows, Performance Tracking etc.
- Monitor your waste stations in real-time
- Compatible with multiple devices
- Manage your asset fleet and collection teams on the go
- Analyze historical trends to improve operational efficiency and productivity
- Daily Collection Digests
- Efficiency Metrics
- Transition from headcount based to performance based waste management

More than just a bin



Beautify, or communicate a message and make your statement



Generate advertising revenue with new spaces



Custom wrap your Bigbelly to your preferred design

Smart Bin as a Platform

Global
Solutions



12V DC Photovoltaic System powers the bin as well as other IoT devices



Onboard communication channels support various IoT protocols



Inconspicuous physical housing to mount and protect IoT devices outdoors

- **Checking and clearing bins is unproductive.** Currently, there is no way of knowing when a bin needs emptying other than doing periodic checks.
- Bin fullness is unpredictable. **Lack of information on bin fullness** and bin clearings can lead to **overflowing bins and negatively affect image.**
- Bins in high traffic areas **need emptying as much as 10-12 times a day** during weekends and events. More clearings mean more plastic bags which **affects the environment.**
- Existing open bin design can lead to **pest and scavenger problems.** Also, food waste decomposes faster leading to **smell issues.**
- The current system does not allow for precise monitoring of cleaner **operational efficiency.** Hence, unable to transition from headcount-based to **performance-based** waste management.

- **Productivity improved** as periodic bin checks have been eliminated via auto alerts. Coupled with compaction which **reduced clearings**, manhours spent on managing waste **decreased by 80%**
- Data and reports provide **visibility on operational efficiency**. Moving from headcount-based to **performance-based waste management** is now possible
- **Aesthetics and hygiene improved** as enclosed hopper design **eradicated overflowing** and visible waste while mitigating pest, scavenger and smell issues
- With compaction, **fewer bins** need to be deployed and is also **environmentally friendly** as fewer bin liners are used



- **Where to deploy Smart Bins?**

The solution is **highly effective** in high traffic areas, areas with unpredictable surges in waste volumes and far out locations where travel is time-consuming

- **Are APIs available to be integrated into my existing FM system?**

The solution **can be integrated** into existing processes and facility and estate management systems

- **What is the service life of the Smart Bins?**

The bins are **durable, reliable and modular** in design. With maintenance and periodic battery replacement, **service life is more than 15 years**

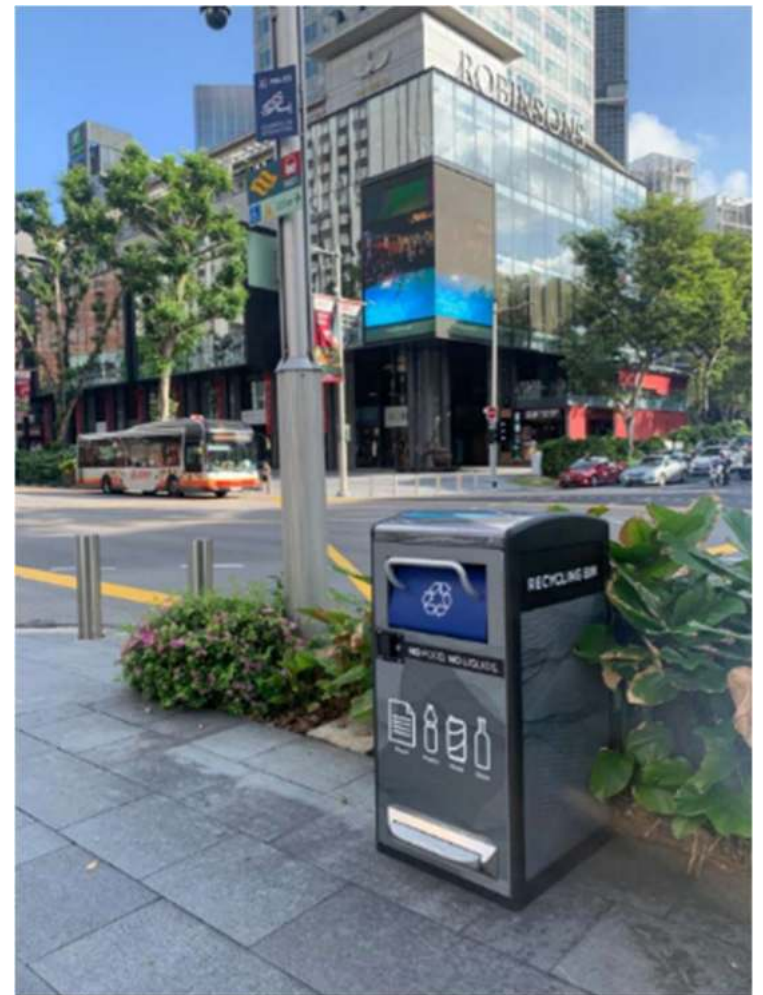
Orchard Road Singapore

Before Bigbelly

- Collections 5 times a day on weekdays
- Collections 7 times a day on weekends
- Overflowing bins

After Bigbelly

- Collections once every 2 days on weekdays
- Collections once a day on weekends
- No overflowing bins
- No need for periodic checking



Universal Studios Singapore



Before Bigbelly

- Collections 3 to 4 times a day on weekdays
- Collections 10 to 12 times a day on weekends
- Overflowing bins

After Bigbelly

- Collections once every 2 days on weekdays
- Collections twice a day on weekends
- No overflowing bins
- No need for periodic checking
- Daily Age Notifications to ensure bins are cleared everyday



Gardens by The Bay Singapore



Before Bigbelly

- Collections 4 times a day on weekdays
- Collections 8 times a day on weekends
- Overflowing bins

After Bigbelly

- Collections once every 2 days on weekdays
- Collections 1 to 2 times a day on weekends
- No overflowing bins
- No need for periodic checking

