

Compartment Trolleys & Bags:

Designed for Segregation at Source



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Trolley Design of Kalasi Palya

COMPARTMENT TROLLEYS : SIMPLIFYING WASTE COLLECTION AT SOURCE

The compartment trolley concept was born out of a simple but critical problem observed at Kalasipalya Market—waste was being collected without segregation, only to be sorted later, making the entire process inefficient and ineffective.

To address this, the system was redesigned so that the collected waste is dropped at the right bag at the source point of collection itself. Dry waste was collected separately in designated bags, while wet waste was handled independently—eliminating the need for secondary sorting.

Building on this learning, the idea evolved in Moodbidri market into a compartment trolley—with dedicated sections for wet waste (in crates) and dry waste (in bags). This ensured cleaner handling, faster collection, and better recovery of materials. The same approach was further adapted in institutional settings like colleges, where trolleys enabled efficient, load-wise waste collection across campuses.



Trolley framework of Kalasi Palya

Today, the compartment trolley is a scalable solution—ideal for markets, campuses, apartments, hostels, and even large facilities like airports. It enables waste to be collected right, the first time, reducing effort, improving efficiency, and reinforcing behaviour change.



Trolley used in campuses to collect waste

For smaller or mobile use cases, the concept extends into compartment bags, allowing waste pickers to segregate paper, plastic, and bottles on the go—making the system flexible yet consistent.

COMPARTMENT BAGS: SIMPLIFYING WASTE COLLECTION AT SOURCE

Compartment bags were designed to make waste collection easier, faster, and more efficient right from the point of generation. Instead of collecting mixed waste and sorting it later, these bags allow housekeeping staff to separate waste instantly while picking it up from bins.

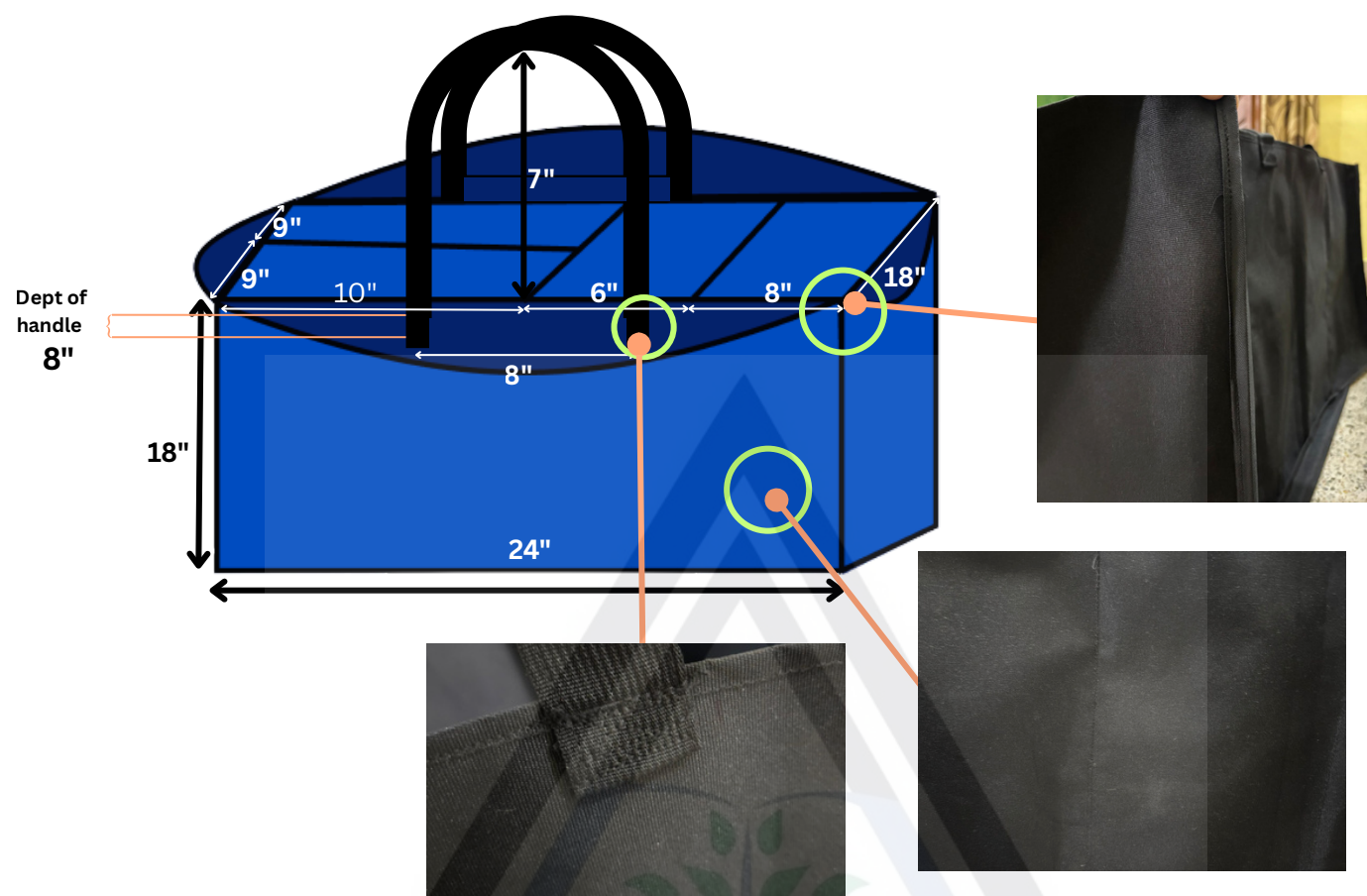


Compartment Bag which is designed by vedan

Each compartment is designated for a specific type of waste—such as paper, plastic, or bottles—ensuring that materials are sorted at the source itself. This enables the collected waste to be directly transferred to the respective aggregation or processing units, without the need for secondary handling.

COMPARTMENT BAG FOR WASTE COLLECTION

Smart Collection. Simple Sorting. Efficient Transfer.



OVERVIEW

A durable, multi-compartment bag designed to enable on-the-go waste sorting during collection, eliminating the need for secondary handling and improving operational efficiency.

KEY SPECIFICATIONS

Parameter	Details
Dimensions	24" (L) × 18" (H) × ~8–10" (D)
Handle Height	~7"
Material	Heavy-duty woven fabric
Finish	Water-resistant, easy to clean
Stitching	Reinforced at all stress points

DESIGN HIGHLIGHTS

Feature	Description
Multi-Compartment System	Separate sections for different waste types (paper, plastic, bottles)
Wide Mouth Opening	Enables quick and easy collection from bins
Reinforced Dual Handles	Strong grip for carrying heavy loads
Structured Box Design	Maintains shape, prevents collapse and spillage
Strengthened Base & Edges	Built for long-term, repeated use

HOW IT WORKS



1. Carry the bag during collection rounds
2. Place waste into designated compartments
3. Transport directly to aggregation points
4. Empty into respective waste streams

FUNCTIONAL BENEFITS

- Reduces handling time
- Eliminates secondary sorting
- Improves compliance at source
- Simplifies work for housekeeping staff
- Ensures cleaner and more efficient operations

IDEAL USE CASES

**Campuses | Hostels | Markets | Apartments | Airports
| Institutions**

The result is a system that is not only operationally efficient but also highly compliant—reducing effort, saving time, and improving overall waste management outcomes for housekeeping teams.

The design of the compartment bag, along with its practical usage, is demonstrated through the images and the short video below—showcasing how simple design can lead to effective waste management on the ground.



Right bin → Right bag → Right aggregation. That's the system.