

**ShinMaywa**

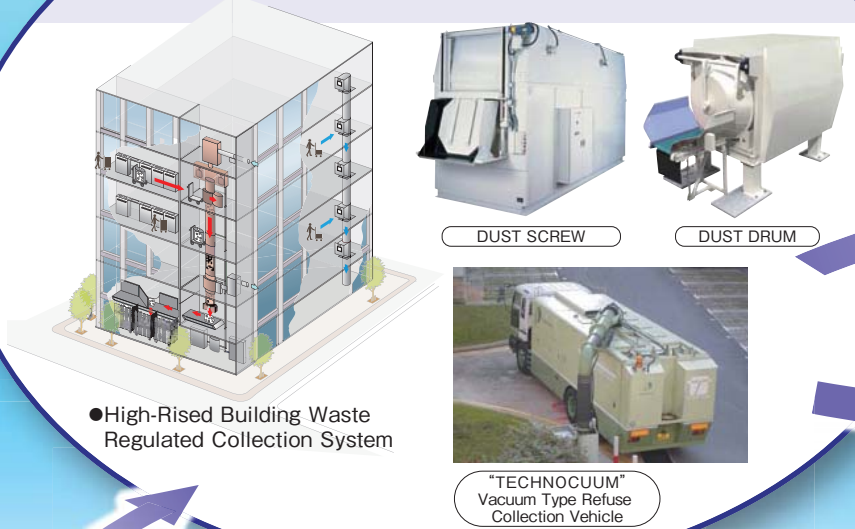
# Integrated Waste Collection and Waste-Resources Recycling System



As a comprehensive environmental company that conceptualizes, designs, produces, installs, and maintains equipment, ShinMaywa contributes to the realization of "Zero-emission Society."

P4-5

Waste Collection & Storage for Office Building & Residential Areas



P6-7

Waste Transfer Station



P8-9

Waste Recycling Facilities



# Waste Storage and Handling Equipment


Hygienic, simple, and compact way to store and discharge waste efficiently

### Problems at Waste Storage

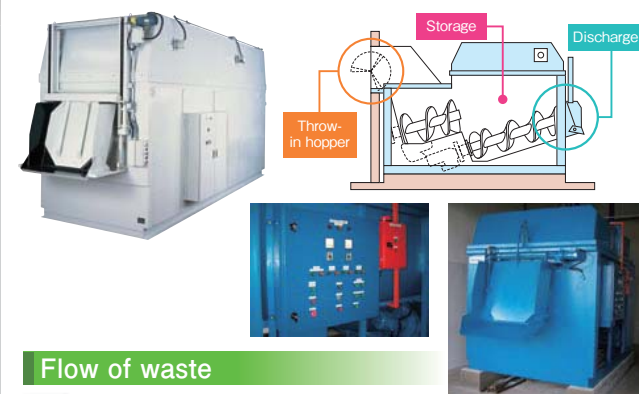
- Waste Spilling from dust bin
- Occurrence of odor and foul water
- Inefficient waste collection
- Large space for waste room

### Solution

- Able to store large amount of waste
- Space saving of waste storage room
- Enclosed equipment
- No leakage of odor and foul water
- Automatic waste discharge
- All-time waste disposing



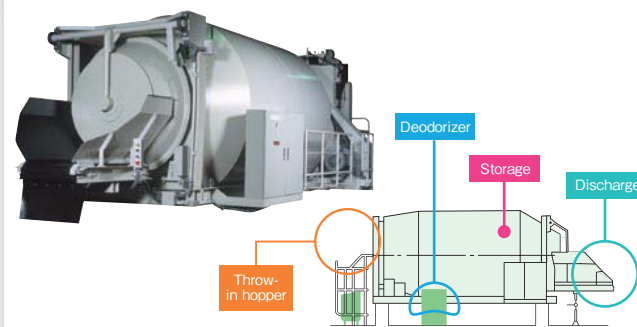
## DUST SCREW (Screw Type)



Flow of waste

- Storage condition-1**  
The inverse charger or person throws in waste.
- Storage condition-2**  
The charging screw automatically rotates for a predetermined duration of time and forwards waste toward the fore section of the storage chamber.
- Storage condition-3 (Fully charged)**  
The actions (2) is repeated several times until the storage becomes full.
- Discharge condition**  
The rotating screw loads waste into a refuse collector.

## DUST DRUM (Drum Type)



Flow of waste

- Storage condition-1**  
The inverse charger throws in waste.
- Storage condition-2**  
The rotation of the drum moves the waste forwards the discharge outlet.
- Storage condition-3 (Fully charged)**  
The charging of waste and drum rotation is repeated until the storage becomes full.
- Discharge condition**  
Waste is transferred by drum rotation to a refuse collector.

# Building Vertical Waste Handling System

## High-Rised Building Waste Regulated Collection System

### Encourage material Recycle

Automated separate collection & storage

### Space saving

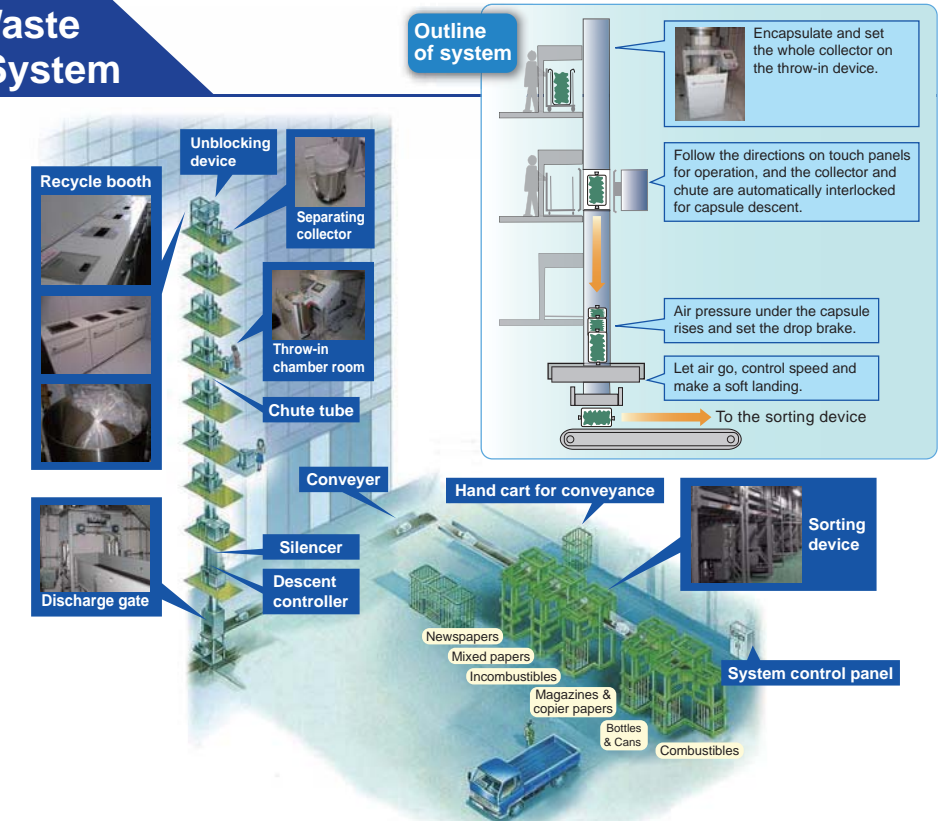
Convey large amount of waste at high speed

### Energy saving

Using gravity and air resistance

### Hygienic

Clean and odor-free by encapsulation

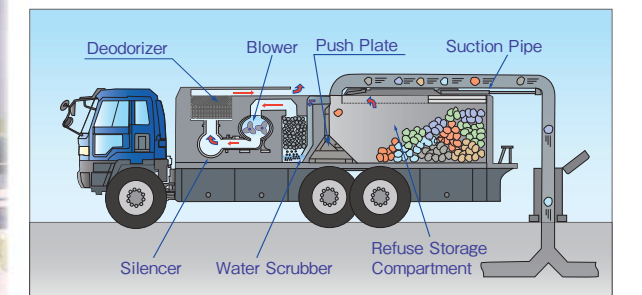
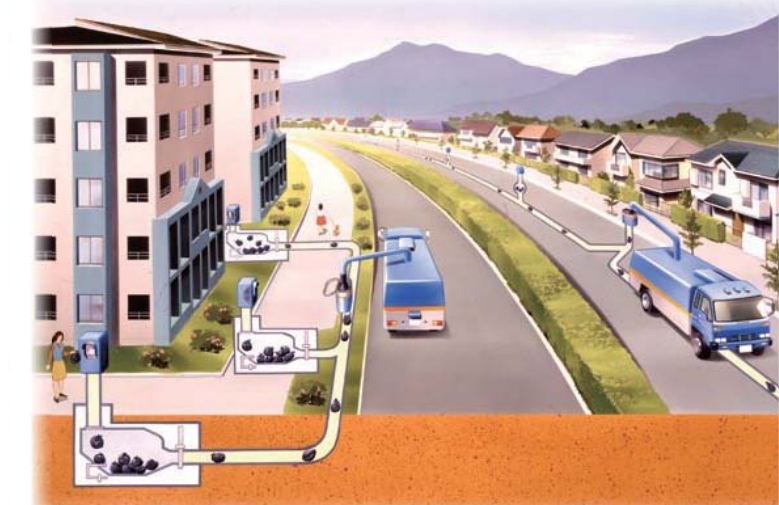


# Pneumatic Waste Collection and Transportation System

An innovative waste collecting system with vacuum type waste collection vehicle originated by ShinMaywa. A desire that waste can be disposed of at any time and moreover the residential areas are thoroughly free from piles of refuse which are completely realized by ShinMaywa.

## “TECHNOCUUM” Pneumatic Waste Collection and Transporting System

Waste can be disposed by residents at any time through a waste chute or outdoor post type throw-in hopper regardless of collection date. The waste in an underground storage tank is pneumatically transferred to “TECHNOCUUM” vacuum type waste collection vehicle by vacuum power. Totally enclosed construction of the “TECHNOCUUM” satisfactorily prevents emission of foul odor.



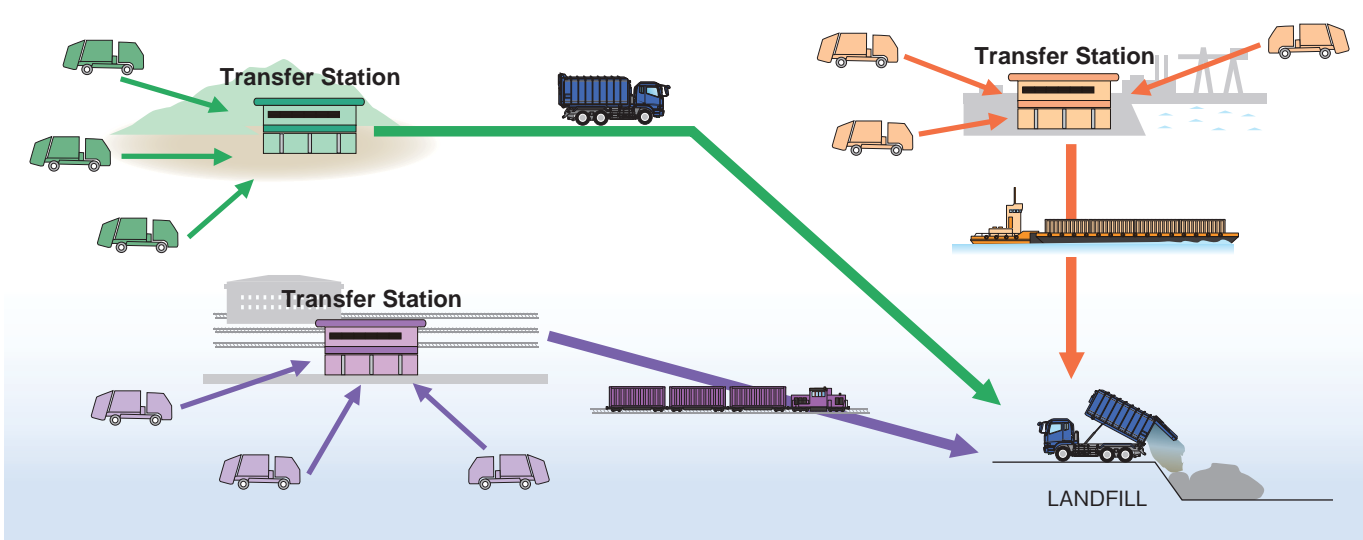
# Waste Transfer Station

Waste is first collected by a number of collecting truck and then compacted into a large-size container at waste transfer station for efficient transportation.

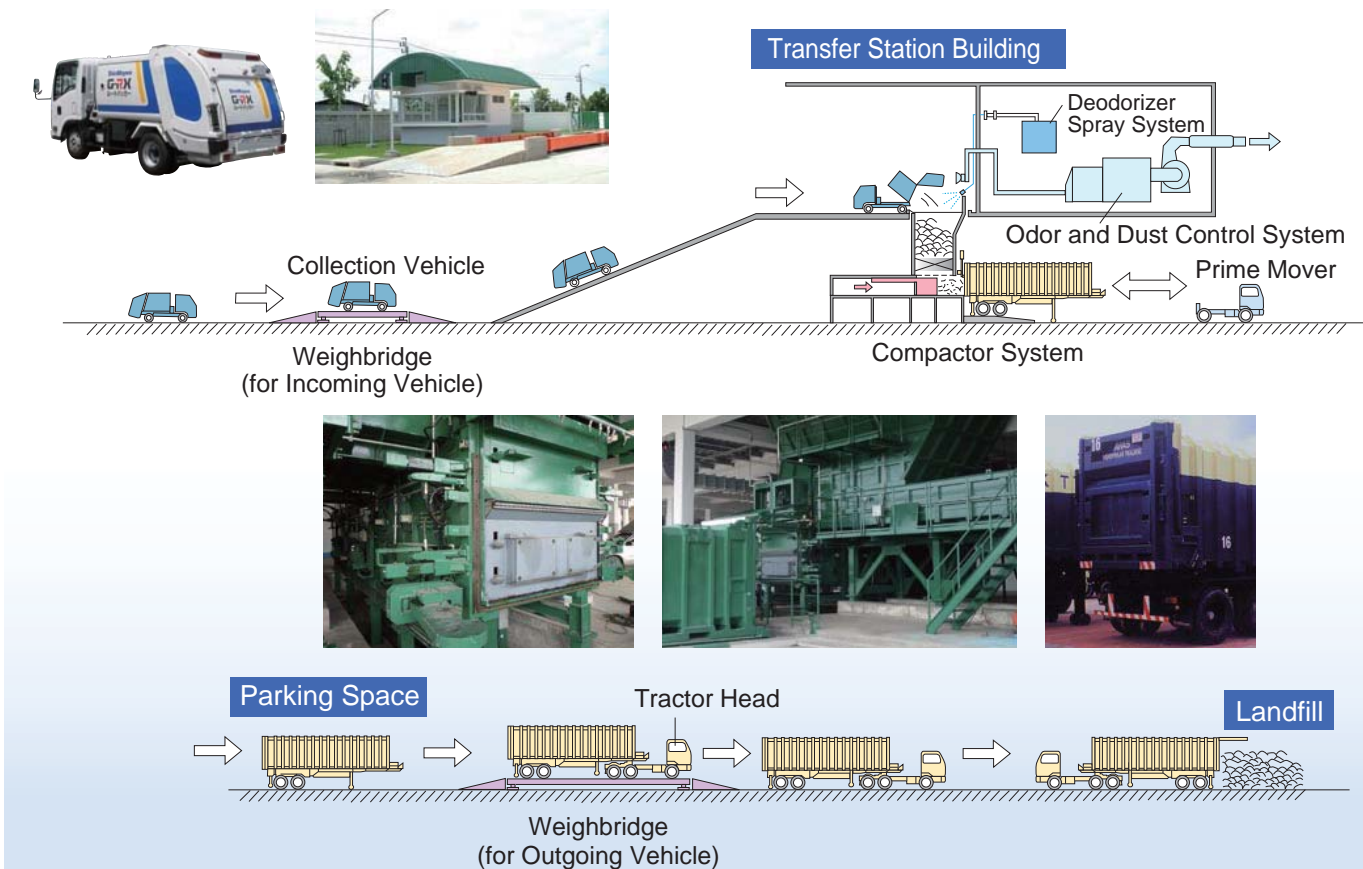
## Need for Transfer Station

- 1 Efficient Collection and Transportation
- 2 Reduce , Transportation & Collection cost
- 3 CO<sub>2</sub> Reduction
- 4 Reduce traffic congestion

### Separate Collection & Transportation

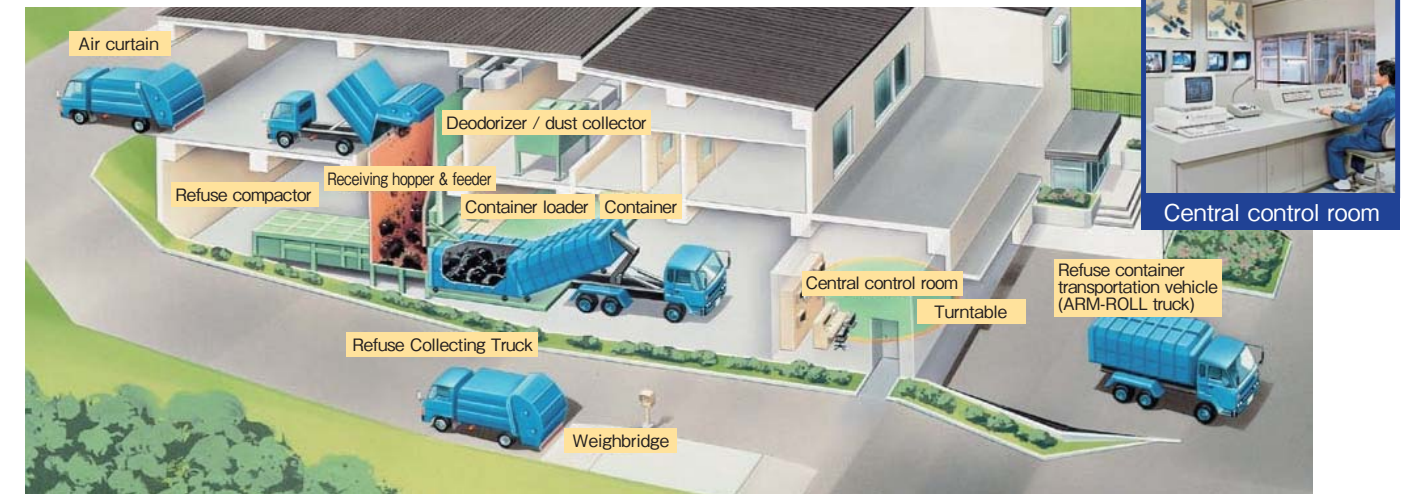


## System Flow

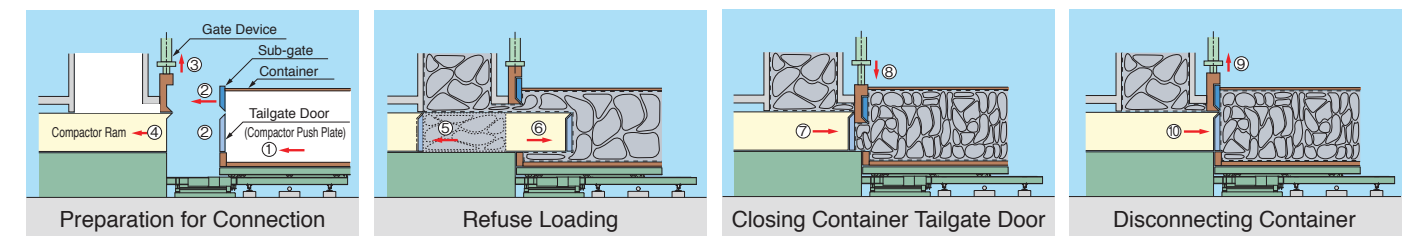


## Transfer Methods

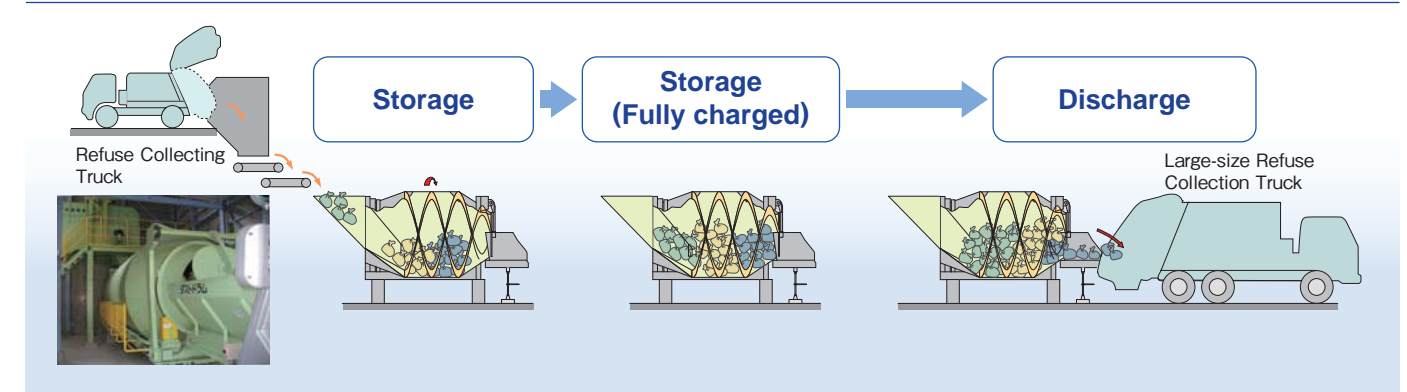
### The Compactor-Container Method



### Sequence of Operation (Transfer container with double shift door type tailgate)



### DUST DRUM Method (Small sized Refuse Transfer Station)



## Transportation Methods

### ● By Ship



### ● By Rail



### ● By Road



# Waste Recycling Facilities

<Flow>

## Receiving hopper & Gantry crane



### Sorter / Separator

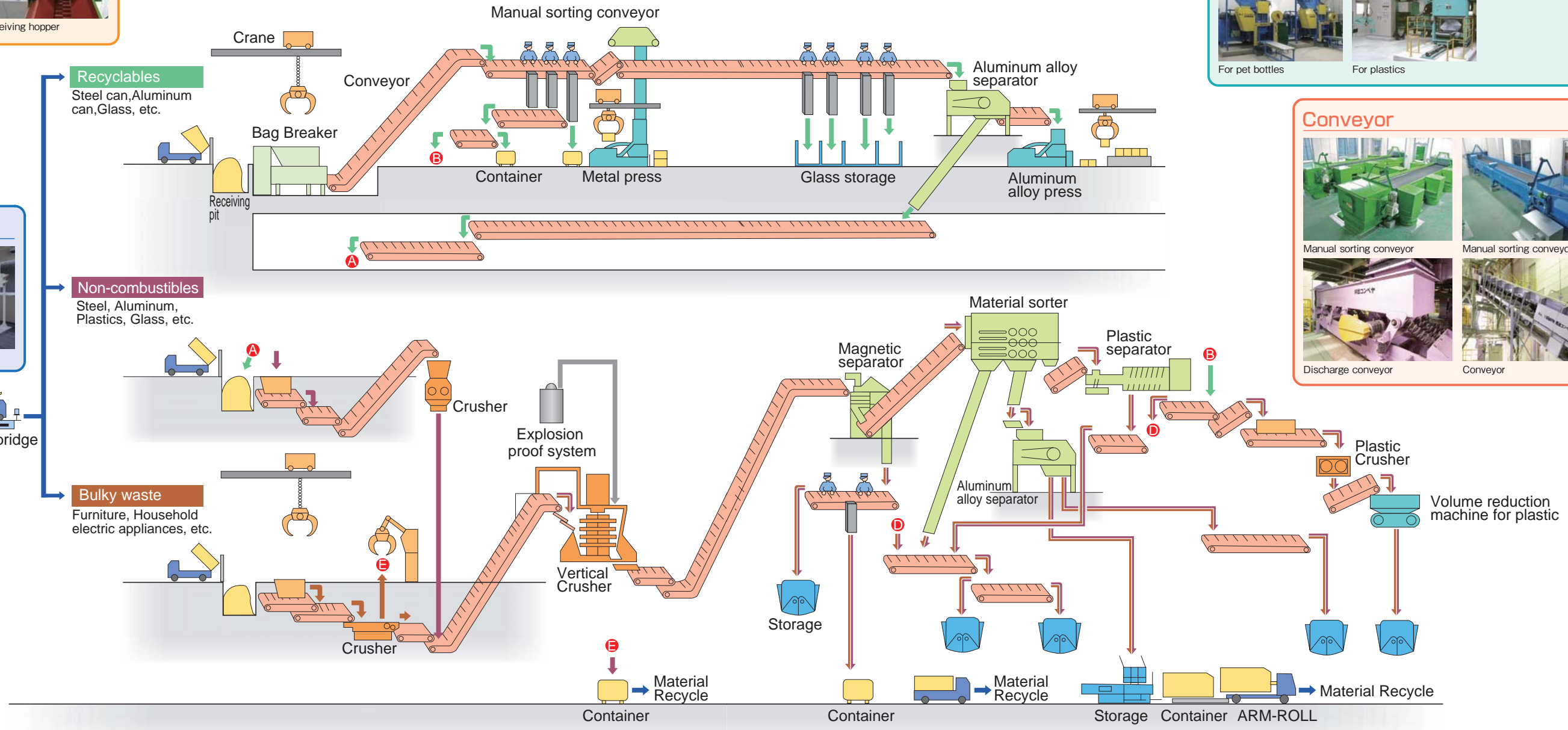
Automatic Bottle sorter   Plastic sorter   Magnetic separator   Rotary screen

### Bag Breaker

### Press machine

For plastic bottles   For plastics   For papers  
For pet bottles   For plastics

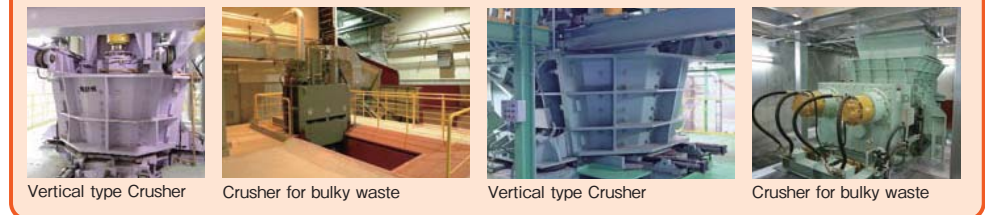
## Weighing



## Conveyor



## Crusher / Shredder

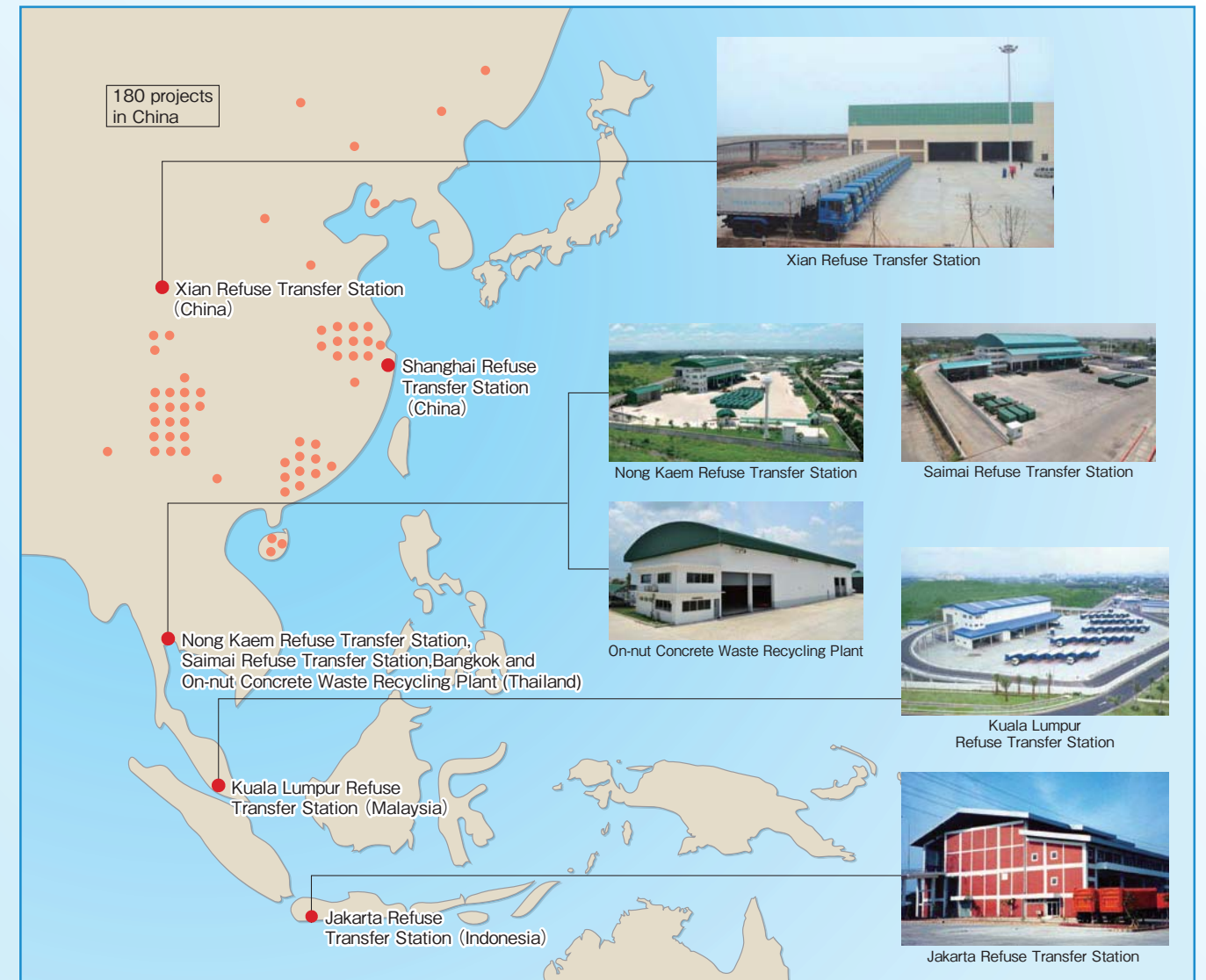


## Storage



# References of Waste Transfer Stations/ Recycling Facilities

## Growing number of Waste Transfer Stations and Recycling Facilities throughout Japan and overseas



## Environmental Vehicles

### Crushing and Compacting Type Refuse Collector

#### G-PX TOWN PACK

ShinMaywa's Town Pack is Japan's No.1 selling compression-type refuse truck. Integrating our DNA in performance, functions, and reliability, it projects the beautiful form full of elegance, equipped with abundant user-oriented new functions.



### Detachable Container System

#### ARM-ROLL

"ARM-ROLL" we proudly present as No.1 sales product permits loading/unloading and transporting several containers with a carrier (truck body). The combination with the trash compression compactor will further increase the efficiency of the trash collection.



### Sewerage Cleaning System

#### "CLEAN CUUM"

CLEAN CUUM has powerful vacuum pump with strong air flow which is very efficient for suction at deeper and long distance.



Western Tottori Public Administration Recycling Plaza



Kamakura-city Fueda Recycling Center



Miyako-cho Relay Center, Fukuoka



Shinjuku Refuse Transfer Station, Tokyo

## Our Overseas Affiliates



Specifications and dimensions are subject to change without notice.

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