

BLT Flexitank Disposal Procedure

Version: V1.0

Release Date: 2026.07.01

1. General Scope

This document defines the procedures for the disassembly, material sorting, and recycling of container flexitank systems after use.

It applies to all single-use container flexitanks and related components manufactured by Qingdao BLT Flexitank Solution Co., Ltd.

The standard is based on circular economy and ESG principles, aiming to improve material recovery efficiency, reduce environmental impact, and support compliant global waste management practices.

2. Product Composition and Materials

The container flexitank system consists of multiple recyclable materials, including:

Part	Accessories	Material
Flexitank	Inner Film	PE
	Outer Woven Fabric	PP
	Valve	PP + Metal + Rubber (Silicone / Nbr / Fkm)
	Valve Stopper Plate	PP
	Exhaust Valve	PP + Metal + Silicone
Container Wall Protection System	Corrugated Paper	Paper
	Corrugated Cardboard	Paper
	Reinforcement Bar	Steel
Container Door Protection System	Paper Bulkhead	Paper
	PP Plate Bulkhead	PP
	Steel Bar	Steel
	Steel Frame	Steel

All materials can be processed through mainstream recycling systems or established recovery channels.

Material Recovery Streams

PE / PP plastics → Plastic recycling stream

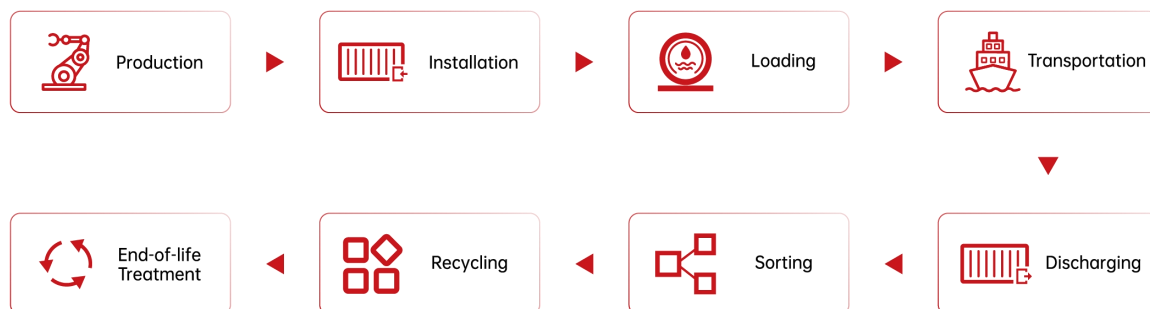
Paper materials → Paper recycling stream

Metal components → Metal recycling stream

Rubber / silicone parts → Specialized rubber recovery or energy recovery

3.Lifecycle Framework

The lifecycle of the flexitank system follows a closed-loop material flow:



After use, all components should be disassembled and separated to enable proper material recovery.

4.Post-use Disassembly Process

4.1 Unloading

- Open the valve according to standard operating procedures until liquid flow completely stops
- Ensure full drainage of residual liquid using manual or auxiliary pressing tools when needed

4.2 Disassembly

Follow the sequence below:

- Separate PE inner film from PP woven fabric
- Remove valves, air vents, and plastic fittings
- Detach metal connectors and steel structures
- Separate rubber and silicone sealing parts

4.3 Sorting

All components should be sorted according to material type:

- Polyethylene (PE)
- Polypropylene (PP)
- Paper materials
- Metal materials
- Rubber / silicone materials

Each material stream must be kept separate to avoid contamination.

5.Circular Economy & ESG Principles

5.1 Design Principles

This system is designed in line with circular economy principles:

- Maximizing material recovery
- Minimizing non-recyclable waste
- Supporting multi-material separation design

- Compatible with global waste treatment infrastructure

Where technically feasible, recovery routes should be prioritized over disposal.

5.2 Waste Hierarchy

The preferred treatment hierarchy is:

Mechanical Recycling → Chemical Recycling → Energy Recovery (Incineration) → Final Disposal (Landfill)

**Landfill is considered a last option and should be avoided where possible.*

6. Compliance Statement

Users are responsible for ensuring that all disassembly, sorting, and disposal activities comply with applicable local and international environmental regulations.

Recycling feasibility may vary depending on regional infrastructure conditions.

Where recycling infrastructure is unavailable, environmentally responsible alternative treatment methods should be applied.

7. End-of-life Treatment Pathways

7.1 PE Inner Film / PP Woven Fabric

Mechanical recycling

- Shredding, melting, and pelletizing for reuse
- Applicable when residues are properly removed and material quality is maintained

Chemical recycling

- Pyrolysis, depolymerization, or solvent-based recovery into base chemical feedstock
- Applicable for heavily contaminated materials unsuitable for mechanical recycling

Energy recovery

- Controlled incineration to recover heat or electricity
- Applicable when material recovery is not feasible

Landfill

- Only applied when no other treatment routes are available and must comply with local regulations

7.2 Valve / Exhaust Valve

Before recycling, components should be separated:

- Metal parts → Metal recycling stream
- Rubber seals → Rubber recycling stream
- Plastic body → PP recycling stream

7.3 Valve Stopper Plate / PP Plate Bulkhead

- Mechanical recycling as primary route
- Shredding and reprocessing into recycled plastic material
- Suitable for clean or low-contamination components

7.4 Paper Components

- Mechanical recycling via pulping and reprocessing
- Energy recovery if contaminated and unsuitable for recycling

7.5 Steel Components

- 100% recyclable metal stream
- Includes rust removal, cutting, and remelting processes
- Classified as high-value recyclable material

8. Conclusion

This standard establishes a structured disassembly and material classification system for container flexitanks, enabling a shift from single-use packaging to high-efficiency circular utilization.

It aligns with global ESG principles and circular economy development trends.

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