



**Beverage Can Makers Europe
Can Handling Recommendations**

BCME is a European trade body which represents the three major drinks can manufacturers:



BCME was established to promote the beverage Can in Europe and does so through the issue of statistics, an annual market report and environmental studies. Further information about BCME can be found at www.bcme.org

In addition to BCME there are country groups in

| | |
|----------------|----------------------|
| France | - La Boite Boisson |
| Germany | - Forum Getränkedose |
| Spain | - Latas de Bebidas |
| United Kingdom | - The Can Makers |
| Eastern Europe | - Bevcan East |

BCME can be contacted by e-mail: info@bcme.org

Contents

| | |
|--|-----------|
| Introduction | 4 |
| 1 Empty Can Pallet Handling | 6 |
| • Good packaging | |
| • Traceability | |
| • Fork Lift Truck Handling | |
| • Warehousing | |
| 2 Distribution of Empty Cans / Ends | 15 |
| • Transportation | |
| • Vehicles - Containers - Railway | |
| • Routes | |
| • Loading/Unloading | |
| • Arrival at Customer Base | |
| 3 Filled Can Handling and Storage | 21 |
| • Loading/Unloading Filled Pallets | |
| • Filled Can Warehousing | |

This manual is for reference and general guidance only. No responsibility for loss caused to any person acting or refraining from action as a result of material in the publication can be accepted by the BCME.

Beverage Can Makers Europe **Can Handling Recommendations**

Introduction

The purpose of this booklet is to provide a reference document for Can users, to define good can/end handling practices from the supplier to the distributor.

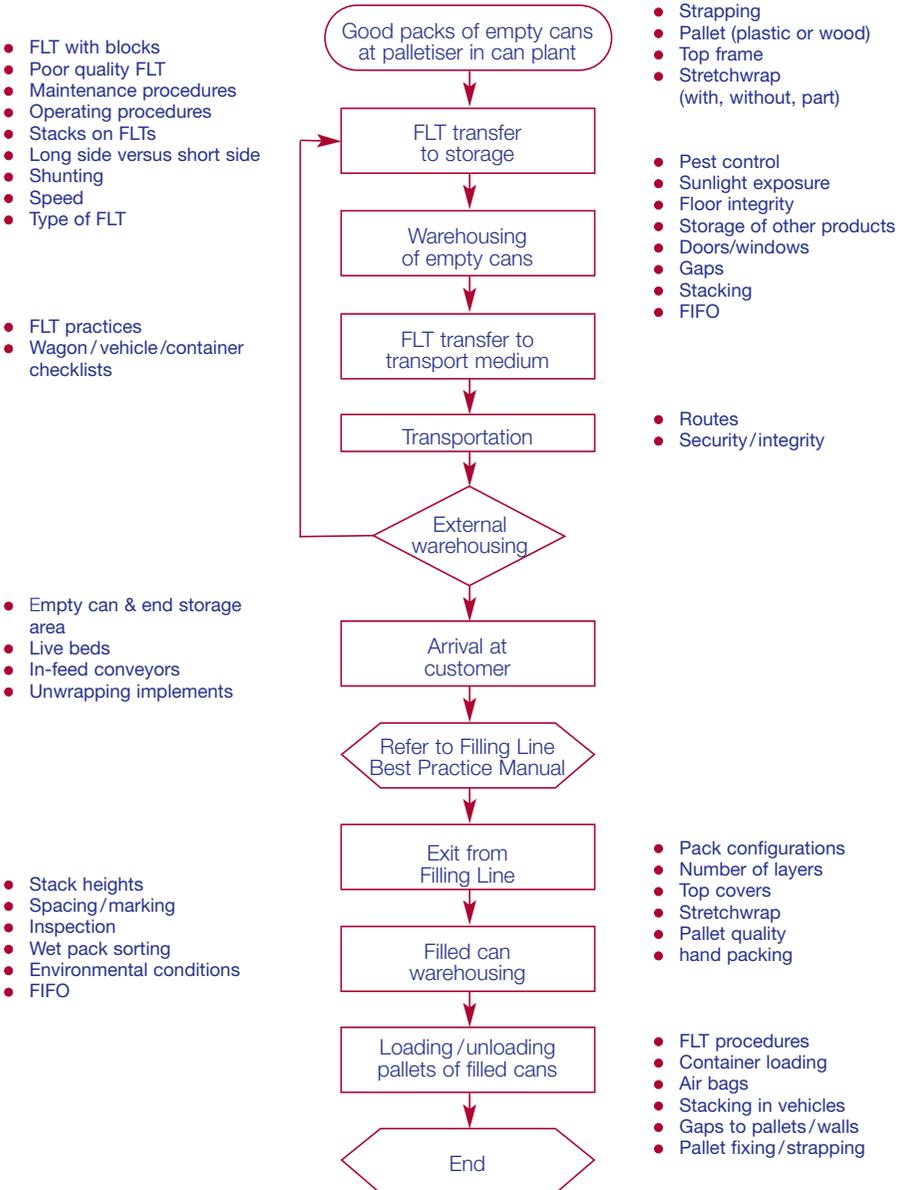
Can uses include:

- Can Fillers
- Can Distributors
- Contractors
- Warehouse operations.
- Transport operations

The scope of this document does NOT include handling within the actual filling line. Please refer to the BCME booklet on can filling best practices.

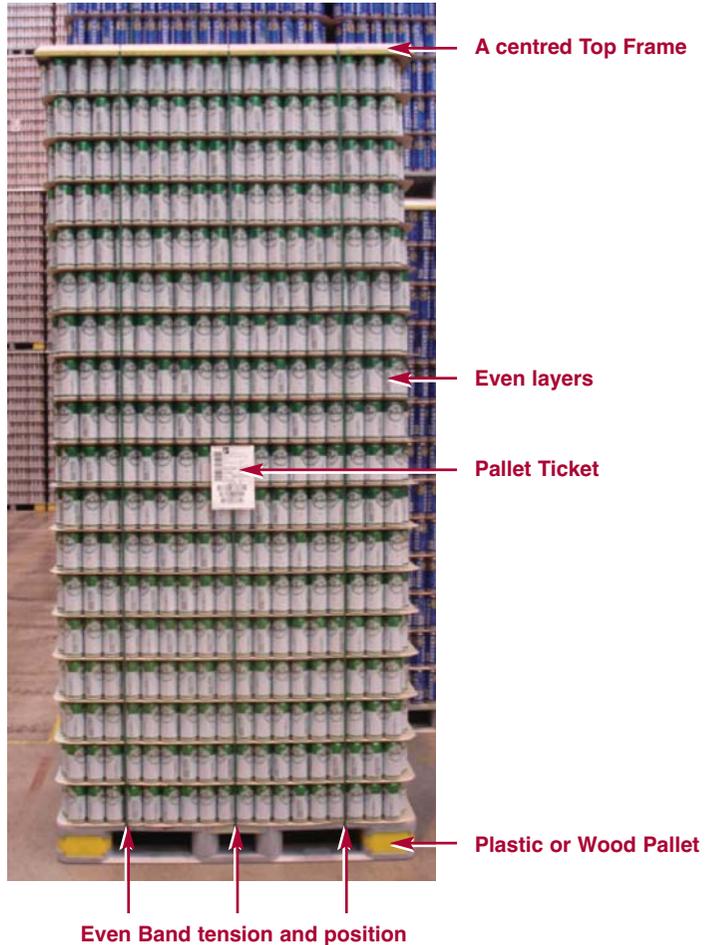
The flow diagram opposite shows the typical process route for empty and filled cans. It describes all the steps which could have an impact on the integrity of the can.

Autumn 2008



Empty Can Pallet Handling

A finished pallet of empty cans should show the following attributes.



The pallet, top frame and layer pads are returnable items.

The handling, storage and return of these materials should be carried out in accordance with the guidelines issued by the BCME technical committee.

End Pallet Handling

A finished pallet of Ends should show the following attributes.



Pallet Handling



Correct Band tension



Each layer pad will have a corner radius

Pallet Handling

Each Can and End pallet will show all manufacturing details.

These labels give full traceability of the pallet contents from the supplier. For example, the pallet ticket number is highlighted by the red circle.



Pallet Handling

Certain supplier conditions can dictate whether a pallet needs to be film/foil stretchwrapped.



No film/foil wrap



Part film/foil wrap



Full film/foil wrap

Pallet Handling

Individual pallets are transported by fork lift trucks.

All fork lift truck drivers should be appropriately trained.

All fork lift trucks should have backstops fitted to prevent 'fork to can' and layer pad damage. This method can also be used for filled can pallets.



No backstops fitted



With backstops fitted.

Fork Lift Truck recommendations

- Electric or Gas powered
- No diesel (due to particulates)
- Local safety regulations apply
- Load lifting guards to be fitted
- The rating of the Fork Lift Truck will need to be re assessed after blocks have been fitted.

Fork lift truck do's and don'ts

- No shunting (pushing pallets against other pallets)
- Transporting no more than two pallets high.

Warehouse Conditions

Key warehouse parameters.

- **Doors** To be closed when unattended
No gaps between frame/floor and door

- **Windows** To be screened off and closed

- **Pests** Control system in place to manage
 - Rodents
 - Birds
 - Flying insects
 - Crawling insects

- **Drains** Pipes in good condition and located to prevent contamination

- **Lighting** All lighting to be protected and in good working order

- **Sunlight** Direct contact with cans must be avoided

- **Floors** Ensure floors are even and clearly marked

- **Gaps** Ensure gaps are left to prevent damage and allow access for inspection

- **Other goods** Certain materials must NOT be stored in the same warehouse as Cans and Ends
 - Glass
 - Chemicals
 - Materials which generate dust
 - Fire risk materials
 - Materials which may cause odour or taint
 - Materials which may attract pests
 - Bagged animal food or cereal grains

- **Local hygiene policy must be adhered to.**

Warehouse Conditions

Examples of good warehousing.

Clear floor marking



Pallet location markings

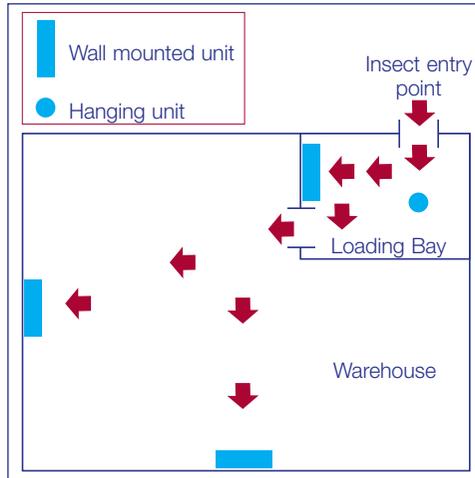
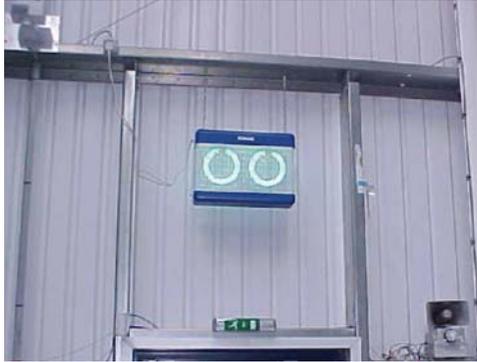


Quick rise doors



Warehouse Conditions

Example of flying insects protection.



Example of Insect-o-cutor location points

Distribution of Empty Cans and Ends

Can and End transportation can be carried out using:-

- Vehicles
- Railways
- Containers

Vehicles

Vehicle trailers should exhibit the following

- No dust
- Odour free
- No leaks
- An even trailer bed
- Appropriate strap anchor points
- Dry wood floors
- No chemical contamination

Railways

Railway trucks should exhibit the following

- No dust
- Odour free
- No leaks
- An even wagon floor
- Appropriate divider walls
- Dry wood floors
- No chemical contamination

Containers

All containers should exhibit the following

- No dust
- Odour free
- No leaks
- No rust
- Water tight and lockable doors
- No ventilation
- Dry wood floors
- No chemical contamination

Distribution of Empty Cans

- Vehicles



- Railways

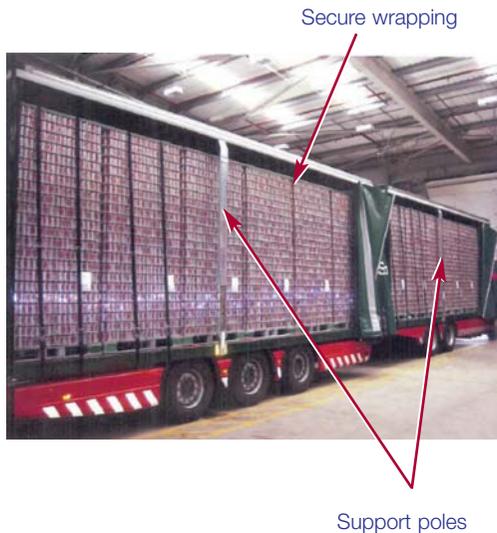


- Containers



Loading/Unloading

- Loading and unloading of empty Can and End pallets must be carried out with due care and attention
- Empty Cans and Ends can very easily be damaged during this basic operation
- Direct placement of the pallet on the bed of the trailer is always preferable
- All loading and unloading must be done under cover to ensure dry conditions exist
- Any strapping must be made safe prior to unloading
- On Tautliner sided vehicles, the support poles must be carefully handled
- Curtain condition should be checked to ensure a leak free environment
- Any Cans or Ends that have fallen from the pallet should be discarded.



Loading /Unloading



Unloading by Fork lift truck



Unloading by live bed conveyors at customer

Loading /Unloading



During live bed unloading



After live bed unloading

Filled Can Handling and Storage

Loading and unloading of filled cans.

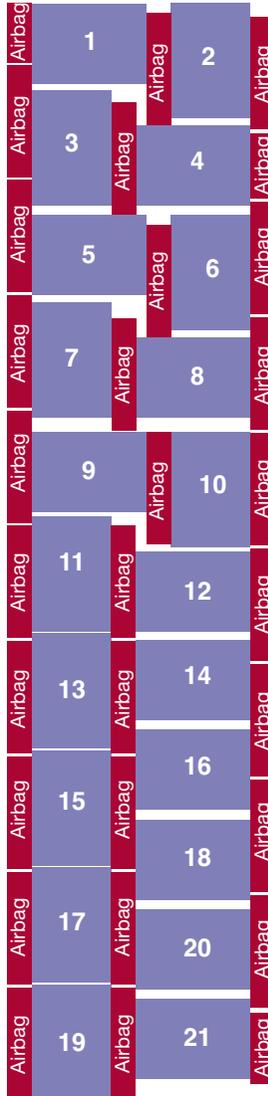
- Loading and unloading of filled cans pallets must be carried out with due care and attention
- Direct placement of the pallet on the bed of the trailer is always preferable
- All loading and unloading must be done under cover
- Any strapping must be made safe prior to loading
- On Tautliner sided vehicles, the support poles must be carefully handled. The Curtain condition should be checked to ensure a leak free environment
- No wet or damaged packs should be loaded
- No pallets to be loaded with overhanging or unstable packs
- Filled can handling incorporates the same mode of transport as empty can pallet and therefore the same conditions must apply
- Avoid loose stacking of trays in containers
- Where appropriate use food safe moisture absorbing materials for container deliveries. This material must be packaged and located to prevent contamination of the product.



This picture shows an air bag stabilizing a container load

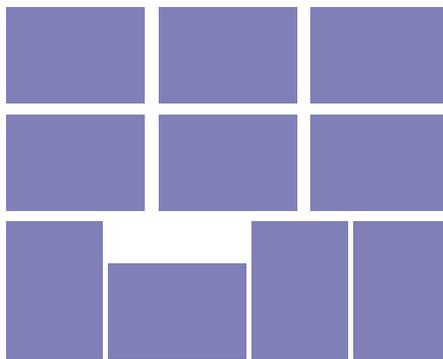
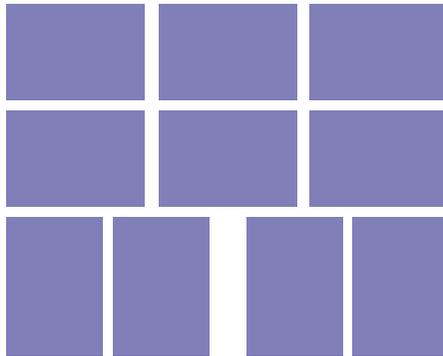
Filled Can Handling and Storage

The diagram below shows a container packed with pallets of filled cans with typical placement of airbags to prevent movement during transit. Other stacking configurations exist.



Storage of Filled Can Pallets

- Storage must provide good protection against local environmental conditions, e.g. moisture, direct sunlight, dust, insect and odours
- Do not store filled cans alongside chemicals and food stuffs
- Filled cans should be packed to ensure good stability and even loading. Some examples of approved stacking patterns on pallets are shown below. This pattern should alternate on each layer.



The Warehouse should have:

- A smooth clean level floor
- Well defined pallet storage area that allows separation between pallets
- Defined walkway and fork lift access
- Lane identification markings
- Adequate spacing for good air circulation and inspections

Filled Can Warehousing:

- Avoid high temperatures and ensure adequate ventilation.
- Do not stack loose trays on the floor
- Do not walk or stand on top of packs
- Stack height not to exceed 3 pallets high
- Pallet bridging is not recommended
- Inspect on a regular basis
- Identified leaking must be isolated
- Look for pallets with overhanging packs and re work
- A good FIFO system must be in place
(FIFO = First In First Out)

Filled Can Warehousing:



Filled goods showing separation between pallets



Regular inspection of finished goods

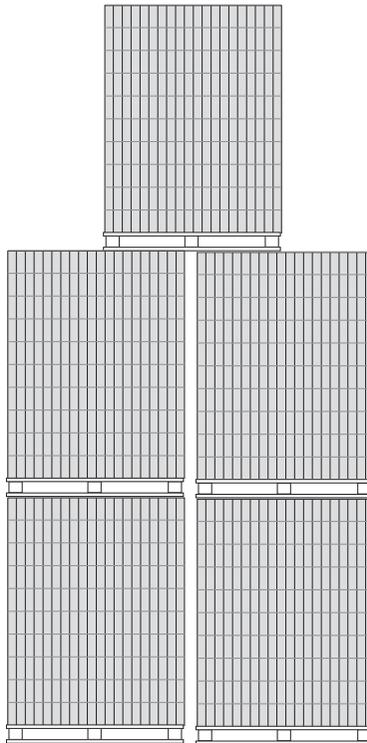
Filled Can Warehousing:



Do not stand on packs



Can leakage in pack



Avoid bridging of pallets



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