Purpose

This document describes the requirements for metal can end manufacturing, ensuring the quality and food safety of supplies to the Coca-Cola system. These requirements are in addition to those defined in Supplier Requirements – General (SU-RQ-005) and Supplier Requirements – Packaging (SU-RQ-020).

Scope

These requirements apply to suppliers of metal can ends to the Coca-Cola system.

Definitions

The Coca-Cola system: The Coca-Cola Company and its bottling partners.

Requirements

- Follow the general requirements:
  - Supplier Requirements - General (SU-RQ-005)
  - Supplier Requirements - Packaging (SU-RQ-020)
- Suppliers must produce metal can ends meeting the Metal Packaging Master Specification (PK-SP-1125).
- The can end manufacturer and the Coca-Cola business unit must agree on the following attributes. Once authorized, the can end manufacturer cannot modify these attributes without prior notification and authorization by the business unit.
  - Buckle strength
  - Compound placement
  - Compound weight/volume
  - Opening Performance
  - Metal exposure
  - Tab flex and strength
  - Vent pressure
- The can end manufacturing process must be stable, in control, and capable of meeting the minimum Coca-Cola specifications.

Raw Materials

- Guarantee the traceability for coils, lubricants, internal and external lacquers, and compounds.
- Provide confirmation that the tab lubricant is food grade.
- Utilize a dedicated storage area if the incoming compound is received in totes.
- Employ a sample retention program for the compound, or formally agree on a sample retention program with the compound supplier.
- Ensure fibre packaging (such as sleeves) does not absorb water.

Shell Press (see Off-Line Inspection)

Balancer or Palletizer/Depalletizer

- Cover the conveyors before and after the balancers and palletizer/depalletizer.
- Implement a formal program to detect and correct potential contamination sources.

Liners

- Control and monitor the following:
  - Compound pressure
  - Temperature
- Employ detection systems for the following:
  - No-compound pressure and low-compound pressure
  - No-spin

Spiral Ovens

- Provide a full set of drying temperatures and tolerances for each oven.
- Employ alarm systems to monitor temperature drops and trigger line stops.

Conversion Press

- Employ defined targets and tolerances for score residual.

On-line Inspection

Liner Cameras

- Fit each lane with liner camera systems.
- Ensure the cameras are capable of inspecting the following shell areas:
  - Countersink depth
  - Curl
  - Lining
  - Panel
  - Panel edge
- Utilize at least the following standard check samples to verify the effectiveness of the liner camera systems.
  - Compound application defect
  - Countersink contamination
  - Curl contamination
  - Curl defect
  - Missing compound
  - Panel contamination
  - Panel wall contamination
- Ensure standard check sample defect sizes do not exceed:
  - 3 mm for compound dots (contamination)
  - 5 mm for compound application defects
  - 5 mm for curl defects

Conversion Press Cameras

- Fit each lane of the conversion presses with a conversion press camera system.
- Ensure the cameras are capable of detecting and rejecting the following defects/contaminations:
  - Curl
  - D Bead (opening panel or inner bead)
  - Panel
  - Rivet
  - Tab

- Utilize at least the following standard check samples to verify the effectiveness of the conversion press camera systems.
  - Curl contamination
  - Inner bad contamination
  - Missing tab
  - Panel right contamination
  - Rotated tab (≥ 10°)
- Ensure standard check sample defect sizes do not exceed 3 mm.

Light Testers

- Fit each lane of the conversion press with light testers.
- Implement a formal program for investigating the light tester rejects.
- Utilize standard check samples to verify the effectiveness of light testers (maximum of a 0.5 mm diameter pinhole).

Palletizer

- Employ specific can end handling rules (e.g. no touching the product side of the end), hair restrains and hand disinfection.
- Perform pallet condition verification (i.e. intact shrink wrap) during the final loading before delivery.
- Number each pallet and, when required, include the EAN 128 barcode on the pallet label.

Off-Line Inspection

- Shell Press
  - Countersink depth
  - Curl diameter
  - Curl opening
  - Panel depth
  - Visual inspection
- Liners
  - Compound placement per lining station and gun
  - Compound weight per lining station and gun
  - Visual Inspection

- Conversion Press
  - Bubble height
  - Bubble thickness
  - Buckle pressure
  - Button height
  - Button thickness
  - Compressing weight
  - Delta between tab strength statistical minimum vs. the statistical maximum of Pop/Push
  - Enamel rate
  - Inner bead height
  - Leak detection on Borden tester (perforations)
  - Leak detection on Helium tester (micro perforations)
  - POP force
  - Push force
  - Rivet diameter and thickness
  - Score residual
  - Stacking height
  - Tab bends (flex)
  - Tab final smash
  - Tab strength 90°
  - Tab thickness
  - Vent bead
  - Vent test
  - Visual inspection

Final Packaging/Warehouse/Transportation

- Mark the location for end-of-run production (partial pallets).
- Cover loading bays.
- Use enclosed trucks to transport can ends.

References

Metal Packaging Master Specification	PK-SP-1125
Supplier Requirements - General	SU-RQ-005
Supplier Requirements - Packaging	SU-RQ-020

Revision History

Revision Date	Summary of Change
27-Jun-2014	New KORE document that describes the requirements for metal can end suppliers.