FOOD & BEVERAGE // BOTTLING & CANNING

Bottling and canning line inspection in South Africa

Beer, soft drinks, water and wine run on fast lines with returnable glass, PET and cans. These are the camera stations that sit on them, what each catches, and the rules behind the checks.

TECHNICAL REVIEW: Frank Guo (https://www.linkedin.com/in/frank-g-15b59b57) · REVIEWED 3 OCTOBER 2026

Describe your line

// SHORT ANSWER

Bottling and canning line inspection in South Africa covers four stations that fit most beverage lines: crate inspection for returnable bottles, multipack checks for missing bottles or cans, can-end code and dent checks, and label inspection on wine and spirits bottles. addaScan builds each on HIKROBOT cameras or vision sensors with a reject, and every page below gives the hardware and an indicative rand budget for a typical application.

// ON SOUTH AFRICAN LINES

Returnable glass, PET and cans on the same site

Beverage lines in South Africa handle three container families, often in one plant. Returnable glass is a large share of beer: HEINEKEN South Africa reported investing R2.3bn in its returnable

bottling programme here (HEINEKEN, 2024). Soft drinks run on PET and glass in many plants; Coca-Cola Beverages South Africa runs 11 manufacturing plants across six provinces (CCBA). Cans come from local can makers, with beverage can plants in Johannesburg and Pretoria (Nampak). Wine is a large domestic market as well as an export one, according to SAWIS sales statistics (SAWIS, 2026).

What these lines share is speed, changeovers between brands and pack sizes, and faults that are cheap to catch at the line and expensive in the trade: a foreign bottle that jams the filler, a short multipack, a can with yesterday's code, a crooked label on an export bottle. Each station on this page is placed straight after the step that can cause its fault.

// LINE SOLUTIONS

Line solutions for these lines

Each is a complete station with HIKROBOT hardware, installation and an indicative installed budget for a typical application, in rand excluding VAT. Projects involve custom requirements, so the final price follows a sample test.

LINE SOLUTION	FAULTS IT CATCHES	HIKROBOT CONFIGURATION	INDICATIVE BUDGET (EXCL. VAT)
Crate inspection	Missing, foreign and capped bottles; debris in empty crates	Overhead camera + VisionMaster, crate diverter	R 250 000 – R 1 370 000

LINE SOLUTION	FAULTS IT CATCHES	HIKROBOT CONFIGURATION	INDICATIVE BUDGET (EXCL. VAT)
Multipack inspection	Missing bottles or cans, missing caps, wrong product in the pack	Top-view vision sensor, or top + side cameras, pusher	R 80 000 – R 660 000
Can inspection	Missing, smudged or wrong can-end codes; visible dents in the can body	OCR vision sensor; four side cameras + VisionMaster DL	R 100 000 – R 1 180 000
Wine bottle label inspection	Missing, skewed or wrong labels; capsule or seal missing; code unreadable	4–6 area cameras around the bottle + VisionMaster, reject	R 350 000 – R 1 170 000

// CHECKS

The checks these lines use, and where each stops

The same inspection applications appear across these lines; each links to the page that explains it in depth.

CHECK	APPLICATION	WHAT IT CATCHES	WHERE IT STOPS
Bottle and crate presence	**Presence and counting**	Missing, foreign and capped bottles in crates; missing bottles or cans in packs	Look-alike foreign bottles; anything hidden under film or inside a bottle
Empty bottle inspection	**Empty container inspection**	Chips on the finish, objects on the base, residue in returned glass	Defects a camera cannot see through the glass from the chosen view

CHECK	APPLICATION	WHAT IT CATCHES	WHERE IT STOPS
Fill, cap and seal	**Fill level, cap and seal**	Under-fill on clear containers, missing or crooked caps, broken tamper bands	Fill in cans and opaque containers; leaks
Codes on cans and bottles	**OCR/OCV and code inspection**	Missing, unreadable or wrong date and lot codes	Barcode grading to ISO standards
Labels	**Label inspection**	Missing, crooked and wrong labels; capsule and seal present	Artwork approval; adhesion over time

// SOUTH AFRICAN RULES

Rules that set the outcome these checks support

The rules require the outcome; a camera is one way to check it on every unit.

- **Clean containers and foreign matter.** The food hygiene regulations require containers used for food to be clean, treat foreign matter and glass as contamination, and bar the sale of cans that are dented or damaged so that the food may be contaminated (R638, 2018). Crate, empty bottle and can checks support this on every unit.
- **Quantity in the pack.** Prepackages must meet the legal metrology requirements, and automatic fillers must be able to detect short fills and keep records (Legal Metrology Regulations, 2018). A multipack count and a fill check support this; weighing stays the proof of contents.

- **Wine marking.** The Liquor Products Act regulations set how lot identification is marked, with exemptions for certified wine and for the filling date on glass (Liquor Products regulations, annotated 2019). A label station checks that the marking your product carries is present and correct.

// FAQ

Questions about bottling and canning line inspection

Which inspections does a bottling line in South Africa usually need first?

Start where faults reach the trade: a code check after the coder, a cap and fill check after the capper, and, on returnable lines, a crate check before the washer and after the caser. Which comes first depends on your complaint and recall history; a short site walk and samples decide it.

Can one camera station cover several checks on a bottling line?

Only when the checks are in the same place and the same view. A cap and fill check share a station after the capper; a label and a code on the same face can share one camera. Crates, cans and labels sit at different points, so they are separate stations linked to the same PLC.

How much does inspection on a bottling or canning line cost in South Africa?

Each line solution above gives an indicative installed budget for a typical application, from about R 80 000 for a single vision sensor check to over R 1 000 000 for multi-camera stations, excluding VAT. Projects involve custom requirements, so the final price follows a sample test on your containers.

Do these stations work on returnable PET as well as glass?

Yes, with their own recipes. PET reflects light differently from glass and crates differ in layout, so returnable PET crates and bottles are included in the sample test alongside glass.

Can a camera check fill level in cans?

No. A camera cannot see the liquid inside a can or an opaque container. Cans are checked for fill with X-ray or high-frequency fill level inspection, which addaScan does not supply; the can station here checks the code on the can end and visible dents.

SOURCES

1. HEINEKEN South Africa moving to 65% returnable glass for beer portfolio in 2024 (https://www.theheinekencompany.com/newsroom/heineken-south-africa-moving-to-65-returnable-glass-for-beer-portfolio-in-2024) (company release, checked 2026-10-02)
2. Coca-Cola Beverages Africa invests R365m in new high-speed line in South Africa (https://www.ccbagroup.com/coca-cola-beverages-africa-invests-r365m-in-new-high-speed-line-in-south-africa) (company release, checked 2026-10-02)
3. Nampak beverage cans and ends (https://www.nampak.com/products/metals/beverage) (company page, checked 2026-10-02)
4. SAWIS: domestic sales and export of all wine, February 2026 (https://www.sawis.co.za/info/download/BINNELANDSE_VERKOPE_FEB_2026_Eng.pdf) (industry statistics, checked 2026-10-02)

5. Liquor Products Act 60 of 1989: regulations, annotated 05/2019 (https://www.sawis.co.za/winelaw/download/Regulations,_annotated_05_2019.pdf) (regulation (SAWIS copy), checked 2026-10-02)
6. Regulations governing general hygiene requirements for food premises (R638, 2018) (https://www.gov.za/sites/default/files/gcis_document/201806/41730gon638.pdf) (gazette, checked 2026-10-02)
7. Legal Metrology Regulations (GN 877, 2018) (https://www.gov.za/sites/default/files/gcis_document/201808/41854gon877.pdf) (gazette, checked 2026-10-02)

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// NEXT STEP

Tell us what runs on your bottling or canning line

Describe the products, the line and the fault you need caught. We test on your samples and reply with a feasibility note and a budget.

Start an assessment