QUALITY BENCHMARK · MACHINE VISION INSPECTION

Rejects on a high-speed packaging line

135 production days, from 14 May to 6 Oct 2026. 26,031,303 containers inspected one by one, with no sampling.

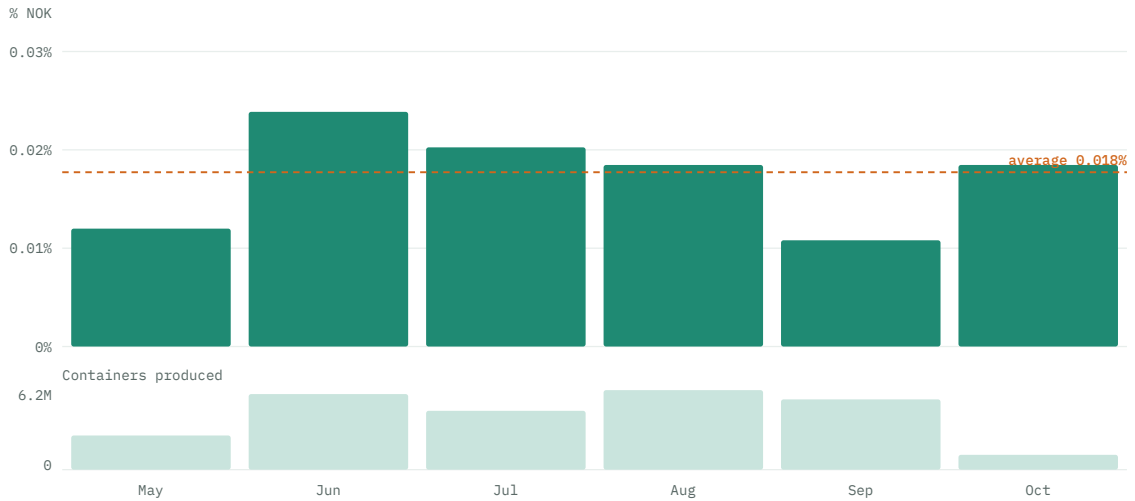
CONTAINERS INSPECTED	NOK CONTAINERS	REJECT RATE	FIRST-PASS YIELD
26M	**4,614**	**0.018%**	**99.98%**
192,824 per day on average	34 per day on average	of total production	1 NOK every 5,642 containers

CAP TEST INCLUDED (CANNOT BE SEPARATED)

Reject rate by month

% NOK · period average · off-scale peak · start-up (<1,000 containers)

Percentage of NOK containers out of the total produced. Below, the volume produced. Tap a bar to see its details.

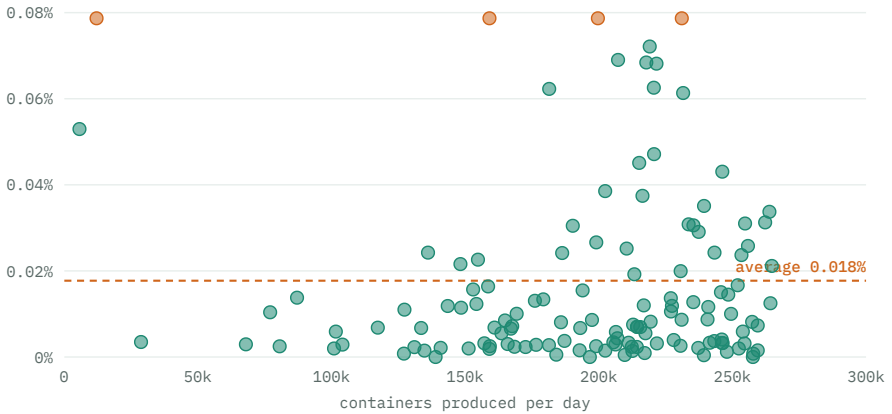


Period	Containers	NOK	Reject rate
14 May – 6 Oct 2026	**26,031,303**	**4,614**	**0.018%**

Daily output versus reject rate

Producing more does not drive up the reject rate. On the **16 highest-output days** (250k or more containers) the reject rate was **0.014%**, below the period average (0.018%).

EACH DOT IS ONE DAY



% NOK BY THAT DAY'S OUTPUT

Under 150k containers/day	0.008% · 22 days
150k to 200k containers/day	0.019% · 36 days
200k to 250k containers/day	0.020% · 59 days
250k or more containers/day	0.014% · 16 days

In orange, the output bands exceeding the average (0.018%) by more than 10%.

Why a container is rejected

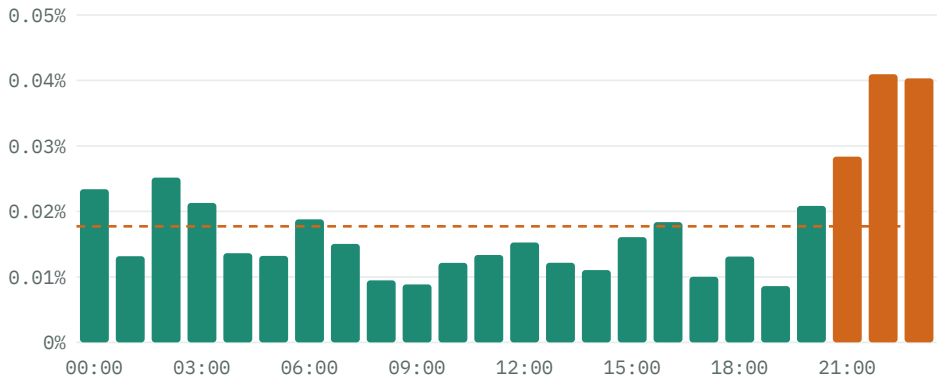
Whole period: 4,614 NOK containers, by the check that failed.

Container without a valid image	928 · 20.1%
Illegible code or marking	3,171 · 68.7%
Seal out of tolerance	164 · 3.6%
Tamper-evident seal	155 · 3.4%
Cap	115 · 2.5%
Other checks	81 · 1.8%

CAP TEST INCLUDED (CANNOT BE SEPARATED)

When in the day rejects occur

Whole period: % of NOK containers by hour of the day. In orange, the hours exceeding 1.5 times the average.



What the containers rejected by the camera look like

Real images captured by the camera on the line. Without inspection, every one of these containers would have reached the retail shelf. Tap a photo to enlarge it.



CODE

No date or lot code

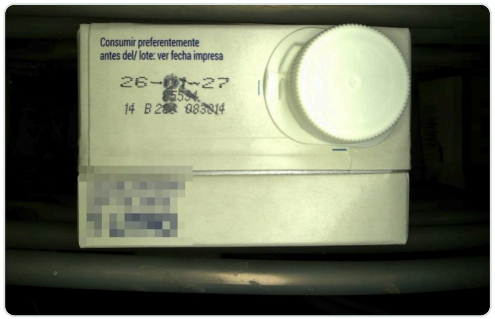
The coder printed nothing: the container would have left without a best-before date or traceability.



CODE

Smudged lot code

The ink ran over the time and lot code, leaving them illegible.



CODE

Smeared date and lot code

A smudge covers part of the printed date and lot code.



SEAL

Oversized seal

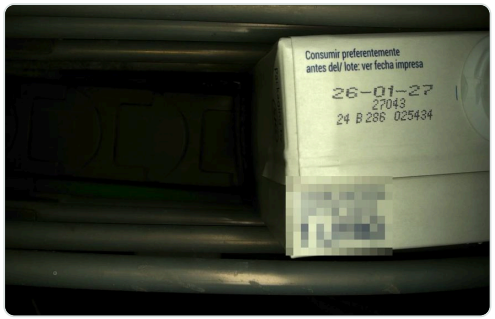
The seal band is much wider than permitted, although the code is printed correctly.



CODE

Obscured code

An adhesive label covers almost all of the date and lot code.



POSITION

Off-position container

It arrives out of position and the cap falls outside the camera's field of view.



POSITION

Rotated container

It arrives turned round: the date and lot code appear upside down to the camera.

How it is measured. The camera inspects every container and writes a line to its log. If that line contains a NOK on any check (image, cap, seal, code, tamper-evident seal), the container counts as a reject.

Periods. Weeks run from Monday to Sunday. Start-up or trial days, with fewer than 1,000 containers, appear in the table but do not set the chart scale.

Source. Real records from a beverage packaging line, from May to October 2026. The customer, product references and recipes have been removed, as has 17 May, which was a commissioning trial day.