Z345 Automatic Colour Inspection Gauge (powered by X-Rite®)

torus
measurement
systems

Torus' Z345 is the first automatic colour inspection gauge powered by X-Rite®.

The Z345 is capable of inspecting 202-300 body diameter, straight walled and finished cans with minimal change parts. Cans may be loaded in any orientation, either on to an automatic in-feed conveyor or directly from the production line. A high-resolution colour-scan camera reads and 'unwraps' the label and aligns it to a master image. The can is then accurately presented to the Ci64 for inspection at pre-defined, user selected locations with unmatched positional repeatability.

Measurement Features:

Feature	
L* Value	Light-Dark
a* Value	Green (-a) - Red (+a)
b* Value	Blue (-b) - Yellow (+b)
c Value	Chromo / Saturation
h Value	Hue
Delta E	Change in total colour from nominal reference.
DeltaEcmc	Change in total colour in accordance with cmc tolerancing from nominal refernce.

Technical Specification:

Capabilities	Typical Range
Can Body Diameter Range	202 - 300 body diameters
Trimmed Height Range	From 85mm - 250mm
Straight Walled and Finished Can compatible	

Benefits to your business

> Automatic X-Rite® Ci64 calibration and qualification

> Quantifiable colour measurement

> Overcomes human error

> Significantly reduces labour time

> Delivers fast, reliable, accurate colour inspection of the decorated aluminium or steel beverage can

> Provides complete L*, a*, b*, Ecmc, E2000 and E94 data for full traceability

> Early warning limits meaning decorators can be adjusted before colours go out of tolerance

Click **here** to view the video

ELECTRICITY
100-240 Volts / 50-60 Hz

COMPRESSED AIR
5 bar / 73 PSI

WEIGHT
800kg

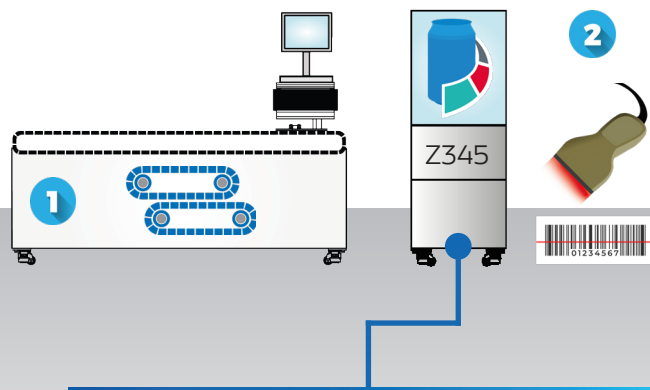**DIMENSIONS**
(W) 3841mm x (H) 1650mm
(D) 1244mm

Customise your Gauge

Our modular gauge setups are unique and allow you to customise your gauge as and when you require, giving you the flexibility to ensure you have a total quality solution.

1 Start with the standard **Z345 Colour Inspection Gauge**

2 Add any of the optional modules/upgrades detailed opposite at any time.

1 Multi-Lane Input Conveyor

- Lane capability typically 24 x 211 body dia. can
- Single lane - 6 options available
- Automatic in-line configuration for each lane available

2 Barcode Verification System (Features)

- Decode (Symbol Reference decode): Graded A or F (4 or 0)
- Symbol Contrast (SC): Graded A-F (4-0)
- Modulation (MOD): Graded A-F (4-0)
- Minimum Reflectance: Graded A or F (4 or 0)
- Defects: Graded A-F (4-0)
- Decodability: Graded A-F (4-0)
- X Dimension
- Check Character
- Display of unique Barcode Number
- Display of Barcode Type
- Overall Grade
- Decode Percentage (Symbol Reference decode)
- Symbol Contrast Percentage
- Edge Contrast Percentage
- Modulation Percentage
- Minium Reflectance Percentage
- Defects Percentage
- Decodability Percentage

Colour Measurement Theory

Colour can be described by the use of three attributes; **hue, chroma** and **lightness** (see below). Hue is simply the recognised colour i.e blue, green, red etc. Chroma describes the vividness of the colour or the amount of hue; also known as saturation. Lightness is the brightness of the colour, referring to whether a colour is light or dark.
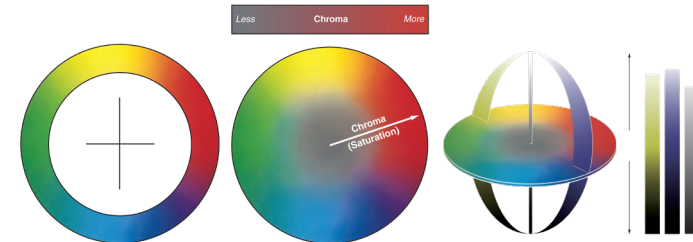
The points which are to be measured on the can are preselected by the operator with the user-friendly point selection screen within the GaugeXplorer software. Operators can choose a number of points at exact positions on the can.