



## **IMAGE 360**

Label

Inspection System

# Label Inspection – BBULL IMAGE 360 / 360c

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Our Image 360 Label Inspection System represents a significant advancement in product quality control. With four high-performance cameras, it offers detailed inspection accuracy for labels, containers, and products.

This system is engineered to spot an array of potential defects, such as misaligned, incorrect, or damaged labels, thus helping all your products adhere to the highest quality standards.

Furthermore, its user-friendly design, along with its ability to minimize errors and increase efficiency, contributes positively to product safety. It's a tool your team will find valuable, simplifying their tasks while ensuring excellent results.



# Benefits

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## Competitive advantage

Gain a competitive advantage in your industry. Differentiate from competitors by demonstrating your commitment to product quality & high-quality products, enhance your brand reputation, and ultimately increase your sales and revenue.

## Increased accuracy

IMAGE 360 uses multiple cameras and advanced image processing software, including optional deep learning capabilities, to inspect products with a high degree of accuracy. This can help to reduce errors and increase product quality.

## Improved efficiency

Automate the inspection process, save time and reduce the need for manual inspection.



# Benefits

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## Enhanced product safety

Ensure that product and container/label always fit together and provide the necessary information, save the trust of your customers.

## Flexibility and versatility

Teach in new labels and change production with easy to use processes. Adjusting the capabilities to your needs.

## Data collection and analysis

Gain advance insight and statistics around your labeling process. Recognize problems early and keep and your productivity at optimal levels.



# Application

## Vast variety of round products

E.G.

- Bottles
- Cups
- Jars
- Cans
- tubes



# Detection

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**Identify labels, containers, products**

**Verify BBD prints**

**Verify containers before filling**

- Horizontal and vertical alignment
- Shifts / overlaps
- Slanted labels
- “Dog-ears”
- Reversed labels
- Duplicate labels
- Damaged labels
- Print inspection (text, language, readability)
- Color
- Wrong labels
- Type verification
- EAN, UPC, pharma code, 2D barcode
- OCR
  - Presence
  - Completeness
  - Readability
  - Correctness

# Process

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## Product inspection

- Multiple cameras capture images of the product from different angles to provide a comprehensive view.

## Image processing

- The images are stitched together and processed by the software to detect shapes and colors.

## Comparison with defined values

- The system analyzes the shapes and compares them to pre-defined standards to determine whether the product meets the required position and shape. Any defects or issues detected by the system can then be flagged for further review.

## Sorting and rejection

- Based on the inspection results, the system can automatically sort the products into different categories, such as pass or fail, or reject those that do not meet the required quality standards.

## Data collection and analysis

- The IMAGE 360 system can also provide data about the labelling process, which can be used to identify trends, optimize processes, and improve quality control over time.



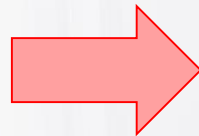
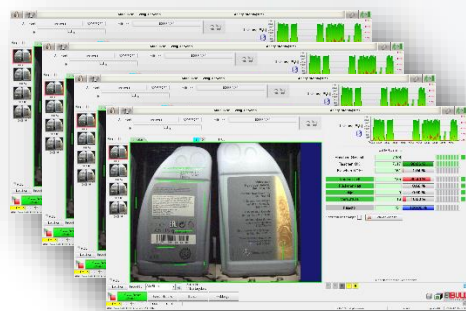
# Expandable with Deep Learning

During a learning phase, several hundred images are recorded and made available to the algorithm.

The algorithm remembers recurring characteristics on the image and assigns them to a established type.

This type can then be named and handled accordingly.

**Resulting in significant higher accuracy and an easier teach-in process.**





# Features

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- Up to **72,000** containers per hour
- Integrated tracking
- Operation & visualisation via
  - 21" display
- Easy teach-in
- Advanced statistics
- Connectivity with other BBULL systems
- Multi-line concept
- Cascadable- & expandable
- Remote maintenance
- Compact design

# Expansions

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## Fill Level Inspection

- **ALPHA-X**

## Cap Inspection

- **ALPHA-MAS**
- **ALPHA-CIS**

## Leakage Inspection

- **ALPHA-PULSE**

## Recommended Rejection System

- **CRATE PUSHER** – Pneumatic/Servo rejection system
- **FLEX SORTER** – Pneumatic rejection system





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## **Take the Next Step! Request Further Information Today**

Contact us to learn more about our system and how it can help your business succeed. Our team of experts is ready to answer any questions and provide you with a personalized solution.

Don't wait, make a call or send an email today and learn about the difference our system can make!

