



A Baumer Company

Coding and Inspection

All-in-one solution for quality assurance of imprints on products, foils, labels and packaging

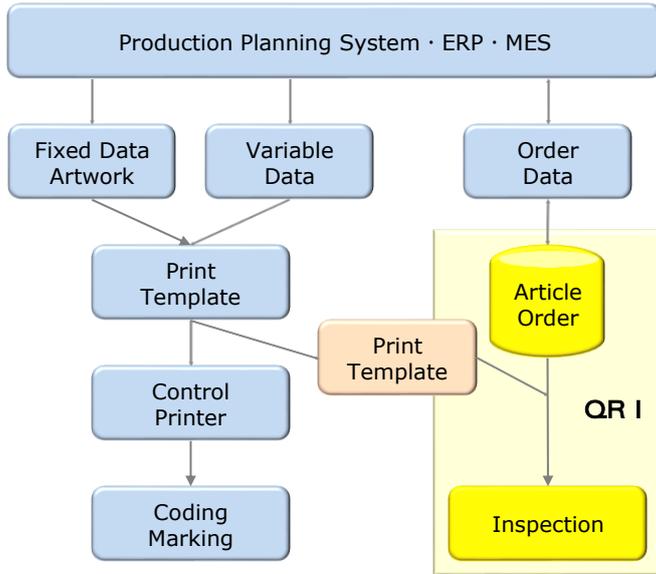


Food · MedTech · Pharma · Cosmetics

QualiReader® – Standard Solution for Coding and Inspection

Inspection

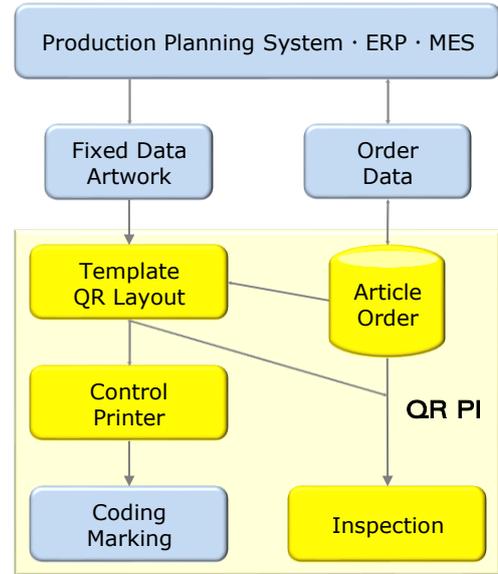
- Automatic transfer of article and order data from production planning system alternatively:
 - data scanning from operation sheet
 - input by hand on touchscreen
- Automatic teach-in from digital print template 'Golden Label'
- 100% Inspection of fixed and variable data
- Serialization
- Duplicate check via preprint inspection



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QR I

Coding and Inspection

- Integrated automation for coding and inspection
- Functionality in line with QR I
- Imprint and image processing for inspection are setup at once based on finalized print template (QualiReader layout)
- There are no further steps needed to order select and production start
- Consistent of coding and inspection data minimizes the risk of operating errors



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QR PI

Print inspection of foils for chocolate bars

- Retrofit in flow wrapping machine of sweets for worldwide distribution
- Inspection foil type according to order (EAN code), production data, expiry date and country-specific nutrition information



Compact All-in-one Print & Check Unit

- Designed for general purpose Pharma, Food, etc.
- Article and order management
- Personalization / Serialization



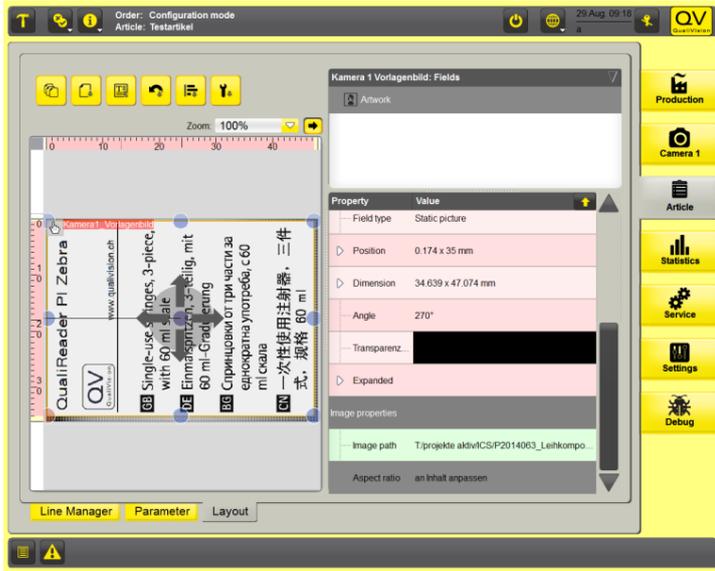
QualiReader allows the Over All Setting in only Two Steps



Data type
PDF · PNG · BMP

Basic Data Digital Print Template

- Sample of 'digital reference with logo and various character types
- Alternative sources of print template are camera image or layout made by QualiReader



QualiReader user interface

Step 1

One-time setup of article

- Import digital print template into QualiReader (PDF, PNG, BMP)
- At once teach-in of coding and inspection

Step 2

Order Select and Production Start

- Data output to print system
- Automated configuration of image processing for dot-by-dot inspection

QR PI – Application Highlights

Printing on Folding Boxes

- Application for pharma
- Thermal inkjet
- Matrix camera

Blister Printing

- Applied in Hapa BlisterJET
- Piezo inkjet
- Line scan camera

Label Printing

- Applied in Toshiba
- Thermal transfer
- Line scan camera



Product Characteristics

Process Data	QualiReader	
	QR I	QR PI
Foil / conveyer speed	Up to 160 m/min (higher speed on request)	
Inspection width	Up to 500 mm (larger width on request)	

Functionality

System integration	Minimal intrusion into existing process	Integrated automation for coding and inspection
Article and order management	Yes, line management	
Duplicate control	Yes, based on characters, code or image	
Data logging and report	Job-related with customer-specific reports	
Computer, operation	Windows 7 operating system, Touchscreen monitor (set-up via touchscreen)	
User administration	Standard 4 level (compliant with 21 CFR Part 11)	
Output	Digital I/Os, TCP socket, RS232, delay of results optional	

Print Inspection

Extent	Completeness, correctness and accurate positioning of fixed and variable data: Text, codes, images	
Template	Digital: Print Template (PDF, PNG, BMP), camera	Digital: Layout QualiReader
Camera type	Matrix and line scan cameras (monochrome/colour)	
Typical resolution	600-720 dpi	
Illumination	Depending on application (e.g. white, blue or red, IR or UV)	

Character Inspection

Characters	Basically all international characters and fonts	
Minimal font size	1.5 mm recommended	
Minimal width of structure	0.1 mm	

Code Inspection

Code types	1D (Barcode), 2D (Matrix code, Stacked code)	
Minimum line width / module size	0.07 mm / 0.14 mm (depending on print template)	
Estimated grading	Yes (depending on minimum bar width)	

Inspection of Images, Logos and Symbols

Minimal width of structure	0.1 mm	
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Marking and Coding

Creating of print template	External	Fixed and variable data: Text, codes, images
Marking and coding systems	External	ReajethR, Hapa, Zebra, Domino, ALFAService, SATO, etc.
Printer types	External	Inkjet, Thermal transfer, UV-DoD, Laser, etc.

Options

Interface to production planning	Standard XML protocol (customer-specific protocol on request)	
Serialization	Balancing	GS1, China-Code
Qualification (IQ, OQ, PQ)	Validatable software modules to fulfill requirements in the pharma, medical and cosmetics industry	

Product Benefits

- Easy system integration in new machines and for retrofit
- Integrated automation from production planning system to the checked print
- Minimum of set-up effort via automated teach-in of image processing
- High process reliability through consistent print and inspection data
- 100% inspection, dot-by-dot on the full-surface of codes, images, international characters and Artworks



QualiVision AG
 Tödistrasse 50 • CH – 8810 Horgen
 Telefon +41 43 500 55 00
 info@qualivision.ch • www.qualivision.ch

QualiVision GmbH
 Schottener Weg 2 • DE – 64289 Darmstadt
 Telefon +49 6151 460 52 50