Off-Line Inspection

Your Vision for Quality.

EyeC Proofiler

EyeC quality control systems

The company

EyeC is a leading vision technology company based in Hamburg, Germany. We are focused exclusively on high performance artwork and print inspection systems aimed to assure the highest quality standard throughout the design and printing process.
Our R&D and Customer Support staff consists of highly skilled and experienced engineers, graduated in either Electronic Engineering and/or Computer Technology with long experience in industrial inspection applications.
Our products are based on the latest pattern recognition technology and are designed to meet the needs of design houses, the printing industry, and their customers. They have been developed in close cooperation with actual users, with a strong emphasis on speed, reliability, and ease of use. Our software is produced in conformance to applicable ISO 9001, GMP and GAMP 5 guidelines, and contains all functions necessary for validation according to the guidelines laid out in U.S. FDA Title 21 CFR Part 11.
EyeC systems are in use at numerous customers in the printing, pharma, cosmetic and other industries across the world, producing offset printed inserts, folding cartons and flexographic self-adhesive labels for food, cosmetic, medical and pharmaceutical applications.

The EyeC History

2003 EyeC Proofiler 400 for off-line inspection
2005 EyeC Proofiler Braille Inspection, Barcode inspection
2006 EyeC ProofRunner for in-line inspection
2007 Cigarette warning text control tool and color distance tool
2008 2D-Code Inspection
2009 EyeC ProofRunner Carton and Inspection for Variable Data
2010 EyeC Proofiler Graphic Multiuser
2012 In-line inspection of sheet offset machines, In-line color control
2014 EyeC ProofRunner Carton Retrofit & Web
2015 EyeC ProofRunner Sheetfed Retrofit
2017 EyeC Workflow Integration & EyeC Quality Link
2022 EyeC ProofRunner HighLight Series & Proofiler RS
2024 EyeC Proofiler 1200 DT & AI Defect Classification

EyeC Proofiler

100% verification – print and content

Finally there is an easy and definitive way to check printing results which also lowers the cost of quality and improves security. The EyeC Proofiler digitally compares the first samples from the printing machine or the samples of your incoming materials against the signed-off proof, so you can always be sure to get exactly what you expect! The inspection is simple, fast, impartial, and reproducible. Every item printed across the web or sheet is processed in one pass. Results are instantly available, giving you the ability and confidence to completely control and monitor your process, and to document this objectively with traceability.

Easy to use

The EyeC Proofiler has been designed with ease-of-use in mind. You do not have to be a computer expert to master this machine within minutes. The entire process consists of three easy steps:

1.) scanning the samples
2.) automatic inspection
3.) printing the report

There is no manual set-up required. All items across the web or sheet are automatically identified and aligned to the signed-off proof for the inspection.

The Proofiling

Every EyeC Proofiler comes with a very fast, high-resolution scanner. All print formats can be accommodated. After scanning, all printed items are automatically identified and aligned with the one-up reference before an intelligent comparison takes place. Relevant deviations such as missing characters or punctuation are displayed, so you can easily recognize what's wrong and where. The advanced pattern analysis of the EyeC Proofiler is able to distinguish between different types of defects so that deviations caused by the printing process itself, such as minor registration variations, can be accepted.

All typical defects can be found including:

- missing parts of letters (as small as a missing dot in a 5-point font)
- filled in letters
- smudges in text area
- missing ink
- spots
- color deviations

Even pre-press related problems can be detected, for example:

- wrong font (e.g. 'Arial' instead of 'Helvetica')
- undesired bolding or italicizing
- missing special fonts
- incorrect character spacing
- missing special characters or accents

Various parameter sets allow for the specific tolerance requirements of different customers or products. Once the inspection is complete, a report can be printed out or archived.

EyeC quality control systems

Sample applications

Labels

Self adhesive labels are used in a host of different industries and applications. Some are very simple and low cost, others may be very intricate and have a higher intrinsic value; in both cases the EyeC Proofiler can be a great aid to setting up the press and ensuring stringent quality control. The first impressions are checked against the customer's signed-off proof. The press can then be run with 100% confidence that the job will be right first time.

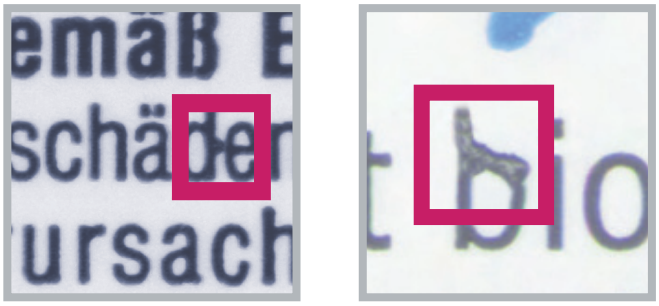
Patient Information Leaflets

Patient information leaflets mostly with multilingual content printed in tiny fonts on both sides of very thin sheets, represent the single most difficult challenge even for the most dedicated human proofreader. With the EyeC Proofiler, sheets can be inspected fresh from the press or in the incoming packaging materials lab. The system can also be equipped with a multiple page inspection option if your process requires it.

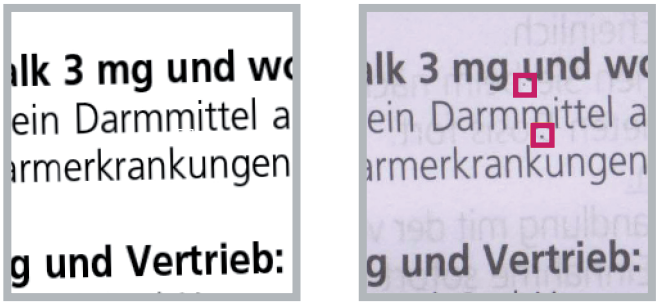
Folding Cartons

The EyeC Proofiler inspects folding cartons with ease. Single cartons or full press sheets can be inspected against a one-up pdf proof, even for press sheets with nested and butted items. Die cut lines and other non-printable features contained in the proof, such as Braille points, varnish free areas and manufacturing instructions are detected and ignored automatically. Equipped with the relevant options, the EyeC Proofiler can also automatically identify and verify printed barcodes and embossed Braille against applicable standards, all within the same inspection cycle.

If you are looking for solutions, which are perfectly adapted to your working process and enable your employees and press equipment to be utilised most effectively, you should talk to us.



Examples of typographic flaws



Examples of leaflets proofing

Examples of barcode proofing

Examples of Braille proofing

Code Inspection

This option enables the EyeC Proofiler to automatically identify, decode and inspect 1D and 2D codes on the inspected print sample. This software option displays barcode type, content and the ISO/ANSI grade for each identified code. A full quality report is created automatically showing grades for each parameter. It is much faster than any kind of hand-held barcode inspection device, is easier to use and provides more consistent results. This option works with UPC/EAN, Laetus Pharmacode, EAN/UCC 128, Code 128, Code 39, ITF and others including most RSS and two-dimensional codes.

Braille Inspection

This option checks embossed Braille for

- presence/absence of Braille points
- content
- correct placement in relation to printed artwork
- conformance to Marburg medium
- embossing quality

It ensures compliance with requirements of the pharmaceutical industry as well as EU directive 2004/27/EC.

Pre-Press Verification

Whenever a new version of an existing artwork file is being created, you want to be absolutely sure that

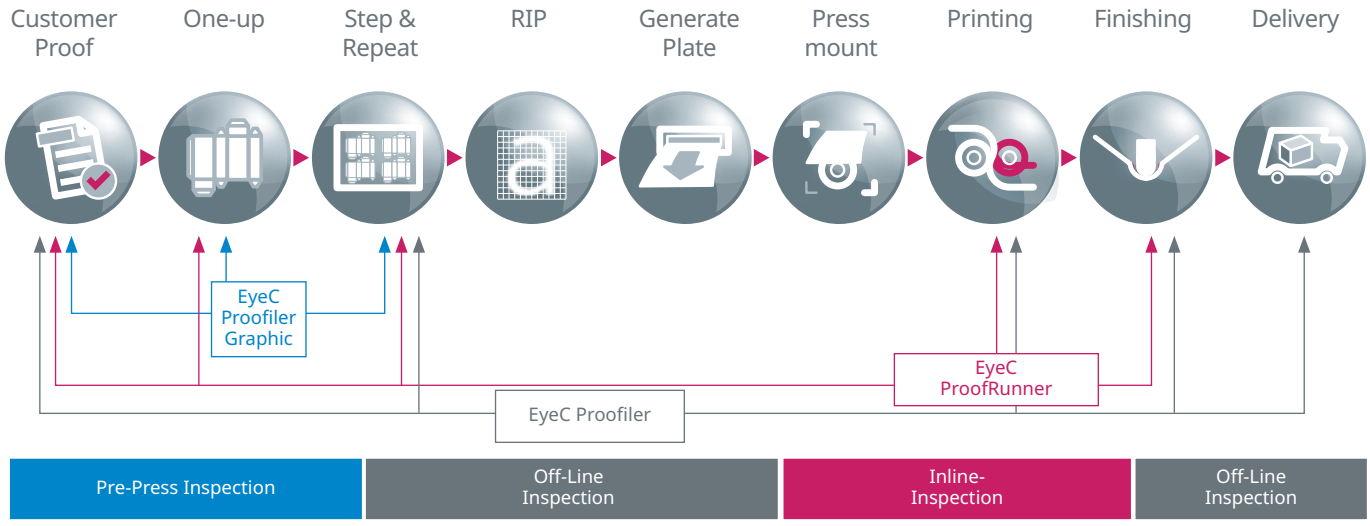
- all required changes have been implemented correctly, and
- no further alterations have been introduced inadvertently.

The EyeC Proofiler Graphic is a powerful software comparator that is used in pre-press departments for print proofing and to compare graphical files, for example PDF to PDF, TIFF to PDF, JPEG to BMP etc; ultimately the customer proof can be checked against the RIP'd print-ready-file.

The EyeC Proofiler

- delivers reproducible results
- is easy to use
- gives you 100% text verification - in any language and in any alphabet
- checks font and other text attributes
- confirms that all repeats are in accordance with the proof

EyeC - One solution for the entire printing process



quality control systems

Typical industries

Print

Whether you are printing flexographic labels or films, or offset sheets, the EyeC Proofiler can be a great aid to setting up the press and ensuring stringent quality control. The first impressions are checked against the customer's signed-off proof so you can have 100% confidence that the job is being run correctly without systematic errors. Every 'up' in the repeat length is checked against the proof and any differences outside of the user selected tolerances are highlighted allowing the operator to decide if further adjustment is required. There is no longer any need for a second pair of eyes to check the press set-up; the report produced by the EyeC Proofiler shows all suspicious areas and all decisions made by the operator, so the supervisor only has to assess the information on the report. Once the press is running, samples can be taken off periodically or just at the end of the roll to ensure consistent high quality is maintained throughout the job.

Consumer & Luxury

The package appearance should reflect the product inside. With an EyeC Proofiler, you may upgrade your incoming materials inspection and make sure your suppliers keep up with your quality standards.

The EyeC Proofiler makes sure printed texts and graphics are identical to the proof, and the correct version has been used for printing.

Food & Beverage

Strict controls on the information that is printed on food and drink packaging puts responsibilities on food suppliers that are similar to pharmaceutical companies. The food company however is likely to deal with far more products and more frequent changes to the printed information on the packaging. Also the typical supply chain is longer and needs to move faster. Wrong or missing information regarding contents, storing or cooking can lead to product withdrawals and even recalls; both being very expensive for the supplier in costs and reputation. EyeC products can help by automatically checking both artwork and printed materials at pre-press, printing and packaging stages – the safer way!

Pharma

Operating under GMP regulations makes it even more important to ensure correct content, sufficient print quality, and absence of systematic defects.

For our pharmaceutical customers, a wrong version, illegible, incorrect or incomplete information on print products means exposure to litigation. In this environment, dependable in-spection processes become an absolute necessity. The EyeC Proofiler is designed to reliably identify significant deviations between the signed-off proof and the printed samples provided for inspection. Patient information leaflets, cartons, and labels can be inspected; and, of course, all EyeC products are produced under GAMP5 guidelines and meet the required technical specifications for complying with 21 CFR Part 11.

However, the gain in product safety lies not just in the capability of the inspection equipment involved, but also in the process surrounding it.

The EyeC Proofiler's intuitive operation stands for a seamless integration into your quality process while reducing the risk of operational errors to a minimum.

And, our support goes much beyond providing qualified technology. During the validation phase, we provide our pharmaceutical clients with relevant and valuable documentation including templates for a Functional Requirements Specification (FRS), Installation Qualification (IQ), and Operational Qualification (OQ). The OQ package includes a validation chart which can also be used for ongoing periodic validation checks of the system.

Tobacco

Besides inspecting for print quality, packages to be used for tobacco goods need to be checked for the presence, legibility and equal distribution of different warning messages as required by law.

Equipped with an optional software module, the EyeC Proofiler performs this task automatically during the print inspection process.

Technical specifications*

	EyeC System	Proofiler					
	Version	300 DT	400 DT Standard	400 DT Enhanced	600 DT	900 DT	1200 DT
Performance	Maximum scan size	216 x 297 mm (8.5" x 11.7")	432 x 297 mm (17" x 11.7")	317 x 470 mm (12.5" x 18.5")	630 x 469 mm (24.8" x 18.4")	915 x 635 mm (36" x 25")	1,270 x 915 mm (50" x 36")
	Average scan time	32 sec.	15 sec.	11 sec.	15 sec.	24 sec.	12 sec.
	Resolution	600 dpi	600 dpi	600 dpi	600 dpi	600 dpi	600 dpi
	Pixel size	42.3 µm (0.0017")	42.3 µm (0.0017")	42.3 µm (0.0017")	42.3 µm (0.0017")	42.3 µm(0.0017")	42.3 µm(0.0017")
Features & Options	Check vs. customer proof Print-to-file or print-to-print	standard	standard	standard	standard	standard	standard
	File-to-file	optional	not available	optional	optional	optional	optional
	Autom. control of layers & color separations	optional	optional	standard	standard	standard	standard
	1D & 2D code inspection	optional	optional	optional	optional	optional	optional
	Braille inspection	not available	not available	optional	optional	optional	optional
	Distance measurement	optional	optional	optional	optional	optional	optional
	Pharma workflow	not available	not available	optional	optional	optional	optional
	Electronic signature	optional**	optional**	optional	optional	optional	optional
	Validation support package	not available	not available	optional	optional	optional	optional
	Health Warning Inspection Tool	optional	optional	optional	optional	optional	optional
	Color distance measurement	optional	optional	optional	optional	optional	optional

	EyeC System	Proofiler				ProofBook
	Version	1700 DT	900 RS	1050 RS	Graphic	Multi-Page Documents
Performance	Maximum scan size	1,778 x 1,219 mm (70" x 48")	914 mm (36")	1064 mm (42")	unlimited	1270 x 914 mm (50" x 36")
	Average scan time	40 sec.	16 sec.	12 sec.	–	12 sec
	Resolution	400 dpi	600 dpi	600 dpi	up to 2400 dpi	up to 600 dpi
	Pixel size	63.5 µm(0.0025")	42.3 µm (0.0017")	42.3 µm (0.0017")	10.6 µm (0.0004")	42.3 µm (0.0017")
Features & Options	Check vs. customer proof Print-to-file or print-to-print	standard	standard	standard	not available	standard
	File-to-file	optional	optional	optional	standard	optional
	Automated control of layers and color separations	standard	standard	standard	standard	standard
	1D & 2D code inspection	optional	optional	optional	optional	optional
	Braille inspection	optional	not available	not available	optional	not available
	Distance measurement	optional	optional	optional	optional	not available
	Pharma workflow	optional	optional	optional	optional	optional
	Electronic signature	optional	optional	optional	optional	not available
	Validation support package	optional	optional	optional	optional	not available
	Health Warning Inspection Tool	optional	optional	optional	optional	not available
	Color distance measure-ment	optional	optional	optional	optional	not available

* All values provided are to our best knowledge at the time this sheet has been created and subject to change without further notice. These technical specifications are based on standard assumptions, please inquire the available speed and resolution of your system with the quotation. The specifications stated in the quotation and order confirmation are assured product capabilities.

** Not pharma-conform.

*** In duplex (doble sided) and including inspection time.

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