



Zero Chance for Faulty Cartons. **Diana Eye 42/55.**



Features and Benefits.

Diana Eye 42/55*.

Fast processing.

Up to

300 m/min

belt speed.



More than

100,000

boxes per hour.

Retrofitting. Two cameras with unique light sources can be expanded to up to six.

Saves set-up times.

Stores digital job data and camera settings.



Safe operation.

Confirmed by GS approval.

Reduction of manual touchpoints.

Expandable with a stacker.

Comparing to the

Golden Image.

System calculates a mean of 50 – 200 reference scores. Additionally manual fine-tuning of each camera possible.

Varied application possibilities.

Detection of punching residues and checking of the printed image as well as finishing such as embossing, special coatings f. e. paint patterns, hot and cold foil applications, holograms, serializations, metallized surfaces, etc.

Variation of materials.

Processing of materials from g/m^2 – $650 g/m^2$.

Each identified error is clearly displayed.



Error evaluation.

Two-stage discharge:

Direct separation of good and bad blanks without destroying them. Sorted boxes can be re-inspected with reduced fault tolerance and sold as B-grade.

* See reverse

Quality Inspection on the Highest Level.

Diana Eye 42/55.

The world of Packaging is lively and therefore changing quickly. Packaging printers that supply the pharmaceutical industry are faced with new regulations regarding codes, track-and-trace systems and protection against forgery while their customers also apply higher quality requirements and expect 100 % control. In the field of luxury products, new embellishment techniques open up endless possibilities for packaging design and at the same time, this is a growing market. While applications like foiling or drip-off varnish have been more or less limited to cosmetic packaging in the past, nowadays they can be also found on cartons for cell phones, coffee capsules, CD-covers and even in the commercial printing segment.

But how can printing shops cope with all this new challenges and still supply flawless quality? A new, clever way of single carton inspection is the key to this offering the printer:

- Significant reduction of defects
- Prevention of resorting cost- or customer claims
- Solid quality documentation
- Peace of mind for demanding customers

The Diana Eye 42/55 is the full-fledged solution that provides real 100 % control of the entire image of every single folding carton. At a competitive production speed of up to 120.000 ct/h the inspection is carried out before the product goes into the foldergluer.

The intelligent user software allows different levels of inspection accuracy and the combination of state-of-the-art camera technology and unique light-sources enable the inspection of:

- the printed image
- hot/coldfoil applications
- embossing
- hologram images
- drip-off varnish patterns
- metalized surfaces
- 1D or 2D Codes

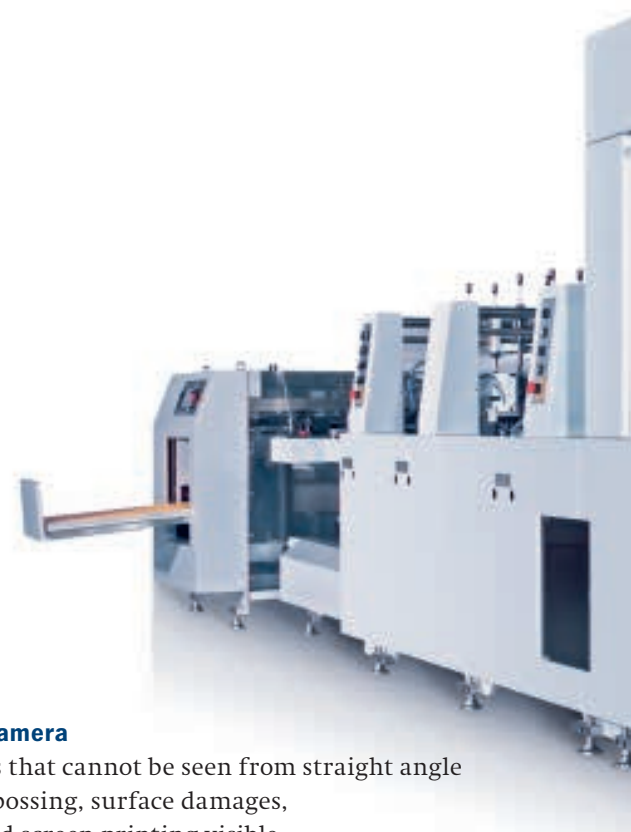
An inline ejector removes all the detected blanks – but without demaging them. So, the ejected blanks do not necessarily have to end up all in the waste bin. They can be either resorted by hand, or by the Diana Eye itself with wider tolerances, so there is a chance to offer “second choice”.

At the working with of 420 or 550 cm the Diana Eye can process safely a wide range of products, from small straightline cartons to large-format ups like presentation folders or mailings.

The Diana Eye is exclusively distributed by Heidelberg and backed up by the worldwide sales- and service network of Heidelberg.

[→ heidelberg.com/offline-inspection](https://www.heidelberg.com/offline-inspection)

Decisive Characteristics. The Facts at a Glance.



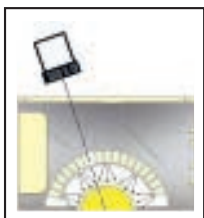
Advanced Hardware:

Light dome with adjustable light angle

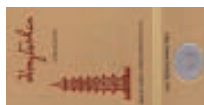
- Four different light angles
- Makes metalized substrate, hot-foil and hologram applications visible
- Aluminum housing keeping the light source cool without air blowers
- Adjustable light intensity

Low angle camera

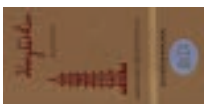
- For defects that cannot be seen from straight angle
- Makes embossing, surface damages, varnish and screen printing visible
- Adjustable light intensity



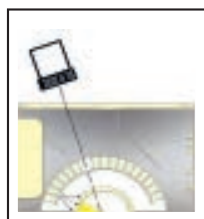
Homogeneous light



Coaxial light



Side light I



Side light II



Front angle view



Low angle view



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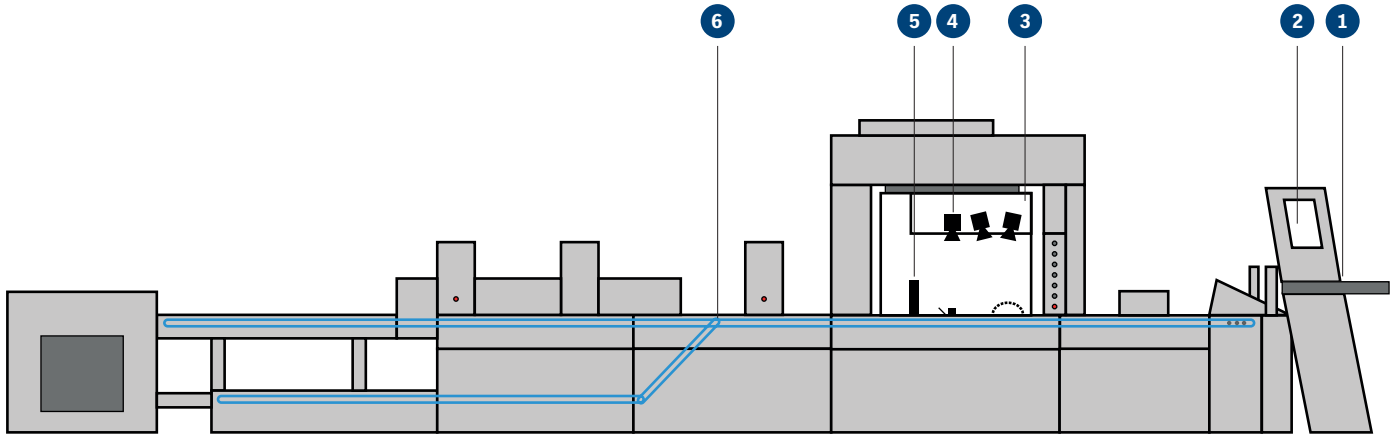


For value retention and maximum performance:

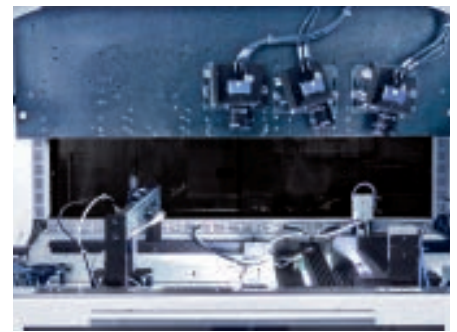
Service Agreements.

- Service agreements offer security and peace of mind, while at the same time providing you with the benefits of full cost control and simple administration
- Servicing by highly trained technicians
- Exclusive use of original service parts
- Protection of your machine investment
- Retention of a high resale value

→ heidelberg.com/service-agreements



The machine shown is a sample configuration. Some of the equipment features mentioned are optional.



1 Image Processing

- GPU+CPU Computing for fast data processing of huge image data
- Master/Slave solution
- Easy to retrofit

2 Operator Interface

- Operator terminal with 15" screen
- Easy to set up by teaching process
- Visualization of threshold setting
- Advanced setting possibilities for challenging applications.

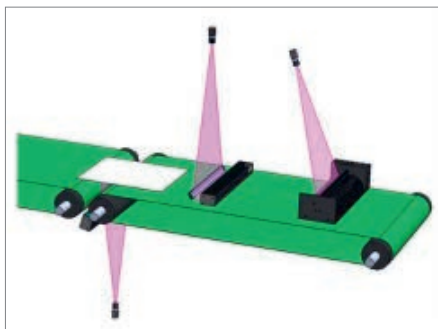
3 Inspection Section

- Suction belt for safe and stable blank transport
- Space for up to four cameras from above, two area cameras, one backside camera
- Easy to retrofit cameras
- Darkened window to shield user from view into active LED

Technical Data

	Diana Eye 42	Diana Eye 55
Processable material	90 – 650 g/m ² cardboard	90 – 650 g/m ² cardboard
Max. speed	300 m/min	300 m/min
Max. output (e. g. 90 mm long small format package)	80.000 s/h – 120.000 s/h	80.000 s/h – 120.000 s/h
Max. sheet size	420 × 350 mm	550 × 500 mm
Min. sheet size	70 × 70 mm	70 × 70 mm

Cameras	4K Color camera RGB	8K mono camera B/W	Area Camera RGB
Pixel	4K	8K	1,2M
Camera line rate	40 k/s	80 k/s	45 fps
Resolution at 420 mm/300 m/min	0,1 × 0,15 mm	0,05 × 0,07 mm	0,04 × 0,04 mm
Resolution at 550 mm/300 m/min	0,13 × 0,13 mm	0,07 × 0,07 mm	0,04 × 0,04 mm



4 Cameras

- 4 K color cameras for inspection from above in combination with a new LED-Lighting technology
- Mirror System for low-angle inspection
- 4 K color camera for inspection of the backside
- 8 K black/white camera for inspection from above (f. i. to inspect finest embossings)
- Area cameras with highest resolution for inspection of critical areas e. g. QR-Codes
- Cameras can be switched on/ off optionally

5 Light sources

- A unique light dome
- Four different illumination modes applicable
- Makes metalized substrate, hot foil and hologram applications visible
- Aluminum housing keeping the light source cool without air blowers
- Adjustable light intensity

6 Blank ejection

- Inline ejection of fault blanks without damaging
- Resorting or re-inspection of fault blanks possible
- Minimizing waste without compromising quality
- Ejection works optional via air blowers or mechanically

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For details on the emissions of the Diana Eye, please visit us at heidelberg.com/emissiondetails

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