

# Print finishing

**hhs**  
Baumer Group

Perfect solutions for  
all demands



Let's stick together

[baumerhhs.com](http://baumerhhs.com)

A reliable and effective print finishing process depends on two main factors: precision adhesive application heads and end-to-end monitoring of the production line and product quality, from feeder to delivery. These two factors have to work together in perfect harmony to guarantee highest-quality results and maximum reliability.

## Precise and reliable application.

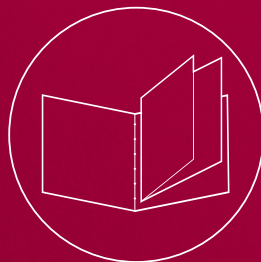
High demands are imposed on the print finishing process in terms of technology and cost-efficiency – Baumer hhs offers sophisticated system concepts to meet them.

Mailings, letter envelopes, mailing bags, card and product samples, fold softening, secondary, spine or side gluing: Baumer hhs develops and engineers

all the equipment you need to gain a permanent competitive advantage and supports maximum quality throughout production – guaranteed.



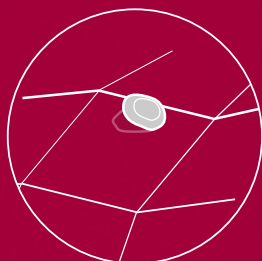
**Water scoring**



**Fold gluing**



**Re-moist**



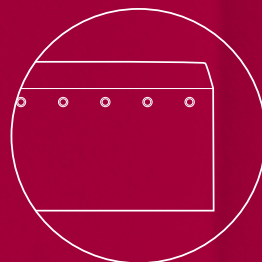
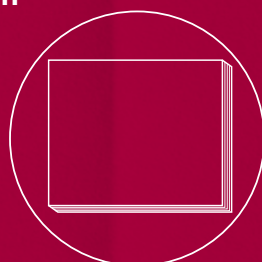
**Latex application**



**Booklets**



**Pick & Place**



**Mailings**

# Consistent, 100% quality control.

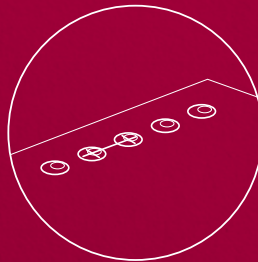
Quality assurance is priority number one at Baumer hhs, which is why we put such emphasis on continuous quality control. Our QA systems function according to fail-safe principles. No product leaves the machine without being checked.

Our quality assurance systems operate in line with your specifications. Defective products can be marked, ejected, or the feeder stopped. And if multiple defects occur, the entire production

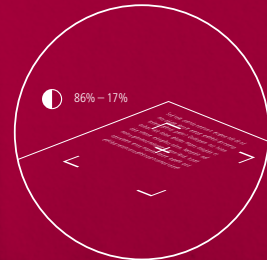
line can be shut down, a particularly important feature for pharmaceutical products subject to strict quality requirements – for good reason.



**Camera verification**



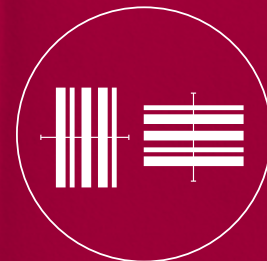
**Adhesive monitoring**



**Blank sheet detection**



**Pattern matching**



**Code reading**

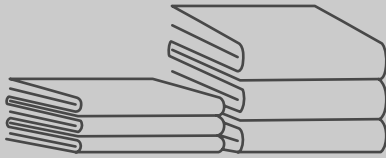


**Product mix-up detection**

# Perfect solutions for package inserts.

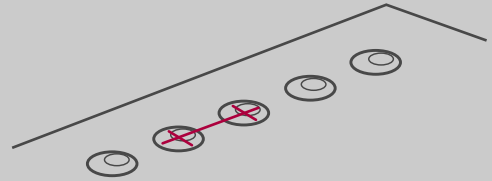
“Ask your doctor or pharmacist, and read the package insert”. This phrase says it all: having the right insert in the right package is of vital importance.

Errors simply cannot be tolerated when manufacturing packaging and inserts for the pharmaceuticals industry. For this reason, we install our Xcam camera system on folding machines and insert/outsert equipment. The Xcam “learns” to read a printed code by being “taught” to recognise a “good” sheet during setup. It can then identify an incorrect sheet in a stack (e.g. in the wrong language) and automatically reject it. The advantage: only the right products are ultimately delivered to the end customer. The system can process various reference codes, including 2D Data Matrix, Pharma and EAN codes.



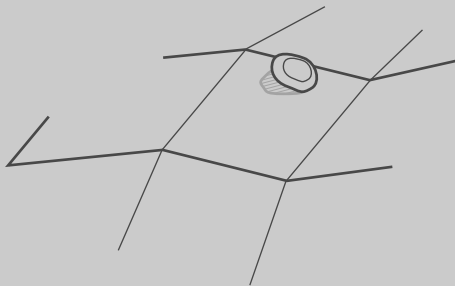
## Water scoring

Water scoring is commonly used to manufacture inserts and outserts for the cosmetics and pharmaceuticals industries. It involves applying a combination of water and alcohol to fold lines before the folding process begins to reduce tension in the fold. The products lie flatter and resetting force is reduced, which facilitates downstream finishing processes. Another positive effect of water scoring is that more inserts can be packed into individual boxes for more efficient use of existing packaging.



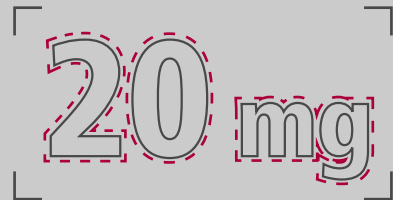
## Adhesive monitoring

Baumer hhs’s quality assurance components are expertly designed to meet the needs of the market. Adhesive is monitored by ULT 300 and HLT 300 sensors, which can detect and monitor glue dots down to approximately 1 mm in diameter. The sensors can detect heat or moisture in dispersions to monitor quality and reliably determine whether the glue has been applied correctly.



## Latex application

For some markets, inserts have to be safely sealed, which is a job for latex adhesives. They eliminate the risk of fibre-tear effects when an insert is opened, guaranteeing that all necessary information remains legible for the user. Latex is a cold glue that is applied with pinpoint accuracy by precision, low-maintenance, cold glue heads from Baumer hhs – ensuring compliance with all regulatory requirements and usually overexceeding them.



## Pattern matching

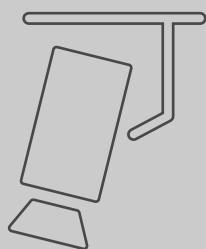
The Xtend<sup>3</sup> camera verification function, combined with the Xcam PF AM / Xcam FS cameras, accurately verifies patterns. By comparing image contours, the system can “learn” to identify even non-readable texts and images and subsequently monitor them reliably during production.

The Baumer hhs glue monitoring system detects cold glue or hot melt, and assesses the position and proper application of the adhesive. If it is applied incorrectly, the machine is stopped or the product ejected.

This monitoring is performed by the Xcam camera system. It can be integrated in an existing Xtend<sup>3</sup> system so that all functions – such as glue application and monitoring as well as product mix-up detection – can easily be operated from the touchscreen interface. The Xcam can also compare images and detect blank sheets. All of these functions combined ensure highest-level compliance in production and maximum reliability. To make use of the data gathered,

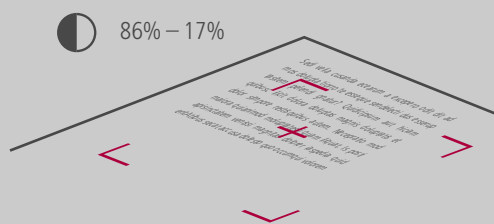
they can be compiled in a production protocol: The system stores the results and generates production protocols, optionally with images of the individual products. In other words, it fully documents the level of quality you achieve in production and can offer your customers.

- The right solution for every application
- Multiple options for high product quality and speed
- Minimal setup, maintenance and cleaning
- Easy integration, even in existing systems
- No interference with speed or sheet feed
- Stand-alone and integrated quality assurance systems



### Camera verification

The Xcam camera verification system is a modular component of the Xtend<sup>3</sup> controller. The Xcam cameras perform verification tasks to meet quality assurance objectives in production. The Xcam PF AM and Xcam FS are used to prevent product mix-ups and as code readers.



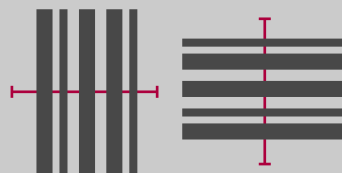
### Blank sheet detection

In checking for blank sheets, the system compares black/white contrast to determine if a sheet has been printed correctly on both sides. The system can reliably detect whether there are missing, double or blank sheets in the stack, which are then reliably rejected.



### Product mix-up detection

The Xcam camera system can be combined with an existing Xtend<sup>3</sup> system. Product mix-up can therefore be detected in fully-integrated fashion from the central controller. The camera reliably detects any changes in a product it has “learned” to identify. Wrong languages, makeready sheets or any other deviations are detected 100% and can be ejected. Several Xcam functions can be displayed on-screen simultaneously for the operator to make a visual check.



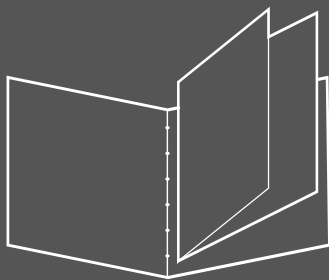
### Code reading

The Xtend<sup>3</sup> camera verification system performs 1D/2D code scanning and automatically reads all common code formats, such as EAN, Pharma, Interleaved, QR and Data Matrix codes.

# Intelligent solutions for mailings, booklets, etc.

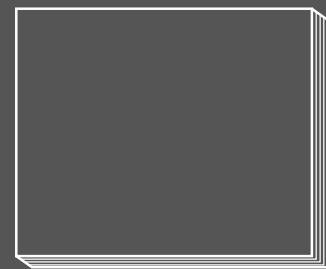
There is literally no limit to the creativity of graphic artists and product designers. These marketing specialists come up with a constant stream of new folding techniques and packaging ideas – we bring their visions to life.

At Baumer hhs, we want to supply the industry with systems capable of producing even complex, innovative folding and packaging ideas reliable, cost-efficient and sustainable. The demands on the cost-efficiency and precision of fold gluing in sheet processing call for a sophisticated system concept. No matter what kind of mailings, envelopes, mailing bags, card or product samples or other methods of gluing you are aiming for: Baumer hhs designs and manufactures the equipment you need to execute even the most complex projects and satisfy all your customers – time and again.



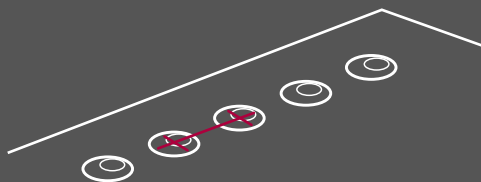
**Fold gluing**

Baumer hhs electric cold glue application heads ensure fast, and precise glue application in lines or finest dots. To produce folded and glued brochures, the non-contact cold glue heads apply a dotted line of adhesive to a flat sheet upstream of the first folding unit. After the last folding operation the finished product is complete and requires no further processing steps.



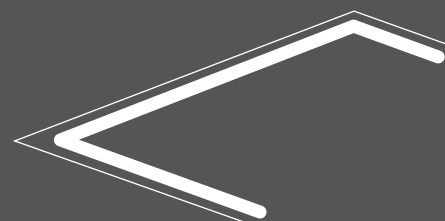
**Booklets**

In the case of booklets, to prevent a folded sheet from opening in the saddle-stitcher or folded sheets in a stack from shifting out of line, a row of very fine dots can be applied along the edge in the trim as a secondary glue line to hold the sheets in place. This glued region subsequently is removed during final trimming. The method is a trick of the trade for producing booklets otherwise considered technically "impossible".



**Adhesive monitoring**

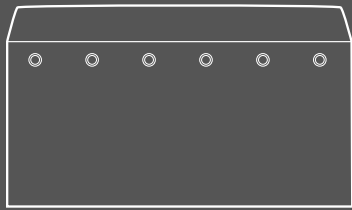
Baumer hhs quality monitoring functions include detecting adhesives (cold glue or hot melt) on a variety of materials and verifying the position and quality of the applied glue pattern. The system checks the glue on every single product that travels through the machine – dot by dot, at every speed, for 100% reliability.



**Re-moist**

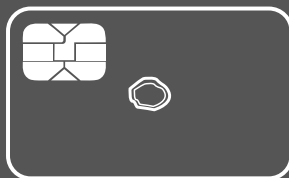
Mailings and other postal items are sealed using so-called re-moist, U-shaped gumming. Adhesives of this kind can be re-moistened to produce localised glue seals. With the HP-500 FR, hot melt adhesive can be applied as a coating up to 20 mm wide to offer the flexibility the market demands.

Baumer hhs gluing and quality assurance systems are preferred by all leading manufacturers and have set new standards in print finishing – from simple single-head systems or spine gluing for 8- to 16-page brochures, all the way to complex applications in the direct mailing sector with code reading and glue monitoring.



## Mailings

Traditional mailings often comprise two parts: an information section and a reply form, on which the re-moist gum is applied in the form of a hot melt. The reply can be filled out, moistened, sealed and returned by the customer. Single-track, U-shaped and double U-shaped gumming can be applied to printed sheets.



## Pick & Place

In pick and place applications, for instance mounting credit cards on customer letters, dots of a peelable hot melt are applied on the substrate to hold the item in place. The adhesive can then be peeled off the substrate without causing any fibre tear. A hot melt applied as a film coating can also be used effectively to mount credit cards on customer letters.

# The right system for everyone with go, evo, pro

Every manufacturer has unique needs when it comes to gluing and quality assurance. With our diverse systems, you get exactly what you need and are still flexibly equipped to meet future demands.

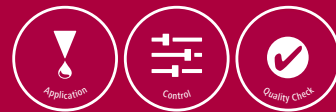
## go



Controller: Xact

Adhesive application only (max. 4 heads),  
no monitoring, no camera

## evo



Controller: Xpect

Adhesive application (max. 8 heads),  
quality assurance: ULT-300, HLT-300

## pro



Controller: Xtend<sup>3</sup>

Up to 64 heads

Quality assurance:

ULT-300, HLT-300, Xcam, VC Camera, Scan 300

Combinable with all systems:

Cold glue application heads: V-500, D-500,  
SW-600, DW-400, DW-500

Hot melt application heads: aerto, tesla, HP-500-F  
Conveying equipment:

CG: KDB-1 low pressure tank, DB-15 pressure tank

HM: Xmelt hot melt unit

# Baumer hhs – Your competent partner

Baumer hhs, based in Krefeld, Germany, is your worldwide partner for reliable and innovative glue application and quality assurance systems.

For us, quality and precision are basic principles of engineering and manufacturing, and professional services are an integral part of our products. We maintain a constructive and collaborative dialogue with our customers and suppliers, which forms the basis for solutions that optimally meet their individual needs.

Our trained sales staff and technicians support you with any issues you encounter in production. The Baumer hhs solution centre in Krefeld offers you assistance with new applications and in selecting the right adhesives.

We want our customers to be excited – with our premium products and our impeccable all-round service. But it's best to see our products for yourself! Just call or send us an e-mail.

We'd be happy to help you with your next project!



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