

Folding carton manufacturing

Intelligent solutions for state-of-the-art
production processes



Let's stick together

From a simple box to a complex six-pack:

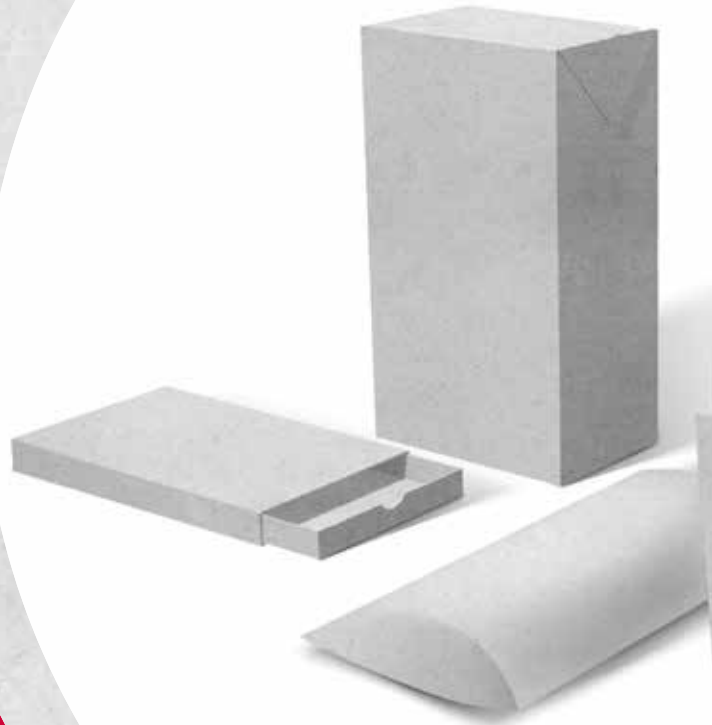
Baumer hhs has the right solution to meet your needs.
You can rely on it!

Folding cartons are getting more complex all the time. And it's no wonder, considering they have to support high-quality product presentation, protect what's inside, serve as carriers and be as sustainable as possible. These multiple functions put growing demands on gluing and quality assurance systems. This is why Baumer hhs offers customers its modular Xtend³ controller, a sophisticated and powerful system for even the most challenging of these technical requirements: It is the industry benchmark.

Baumer hhs is your partner. Our systems can be adapted to your individual needs. Benefit from our technology lead and Baumer hhs's reputation for reliability.

- **Modular design for configuring complete gluing- and quality assurance systems**
- **Easily integrated in existing folder-gluer**s
- **Future-oriented and cost-efficient**
- **Everything you need from a single supplier**
- **We can prepare your team for tomorrow**

And if you need support, we'll be at your site in no time. Our staff is also available via our telephone hotline, or direct remote on your system. That's what we call good service.



Adhesive application systems

Cold glue

Electromagnetic heads from Baumer hhs ensure perfect adhesive application every time. These low-maintenance heads are leaders in overall performance. The latest-generation pumps go easy on the glue with their dual piston technology, maintaining ideal adhesive pressure at every production speed. Perfection in day-to-day production.

Hot melt

Electromagnetic or electropneumatic heads from Baumer hhs for the non-contact application of hot melt adhesives at maximum speed. The Xmelt hot melt units are particularly energy efficient. Equipped with a two-zone tank, they melt only as much glue as the process needs at any given time.



Everything at a glance: Record, document and analyse data

Production statistics

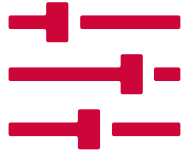
Data exchange with higher-level systems offers entirely new possibilities throughout the process data acquisition (PDA) system. Baumer hhs delivers relevant production data in a detailed report to your higher-level data systems. The statistics provided by the Baumer hhs systems give users a sound basis for adapting and optimising their processes.

Production report

A production report is generated from the production data and defect images stored by the system – digital verification for your customers of the quality of your process.

Innovative controllers

Baumer hhs supplies advanced technologies to meet all customer needs. All our controllers are equipped with the same innovative and intuitive user interface – from the Xact to the Xtend³.



Quality assurance

Glue detection

Whether you work with cold glue or hot melt, the innovative sensors from Baumer hhs reliably detect even the smallest quantities of glue.

Reading and evaluating codes

Specialised sensors identify codes and compare them with a master to guarantee maximum reliability in production. Baumer hhs sensors understand all the common codes, such as colour, Pharmacode, UPC or data matrix.

Camera verification systems

Camera systems, adapted to the requirements of your application, verify glue or codes, or monitor the condition of your products.

Ejecting defective products

Quality monitoring is fully integrated in the system, guaranteeing automatic product tracking and reliable ejection of defective products from the production process.

Fail-safe principle

Products only leave the machine after the very last sensor has given its OK. That's reliability you can count on!



Overview of the Baumer hhs system modules

Gluing, quality assurance and process control – all integrated in one system

The more complex a manufacturing process becomes, the more important it is for all the individual modules to be fully integrated in the system and work together perfectly – which of course can best be achieved when they all come from a single supplier: Baumer hhs offers you a system concept with individual modules designed to interact flawlessly.

Every function is integrated: from gluing and quality control, to the central controllers and production statistics. With this modular concept, Baumer hhs can supply you with exactly the right system to meet your needs.

Gluing



Cold glue

A dispersion adhesive is used because it penetrates the paper fibres, ensuring long-term bond integrity. The durable application heads from Baumer hhs guarantee maximum reliability in production and minimum maintenance. Whether dot or bead application is used, even the smallest quantities of glue are applied with maximum precision.

- PX 1000 – the premium application head, fast and precise
- P 500 – the benchmark
- DLK go – efficient and low-cost
- DPP 8 – glue delivery unit with double-piston technology

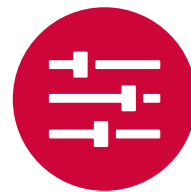


Hot melt

Hot melt adhesives typically offer very fast setting times and can be used to join even difficult materials like films and coated paper-board grades. For special-purpose designs, they are also used in combination with dispersion adhesives to achieve rapid initial bonding. Nothing slips out of place or can open before the cold glue has a chance to set. Easy to integrate for a smooth production process.

- aerto - the power pack among hot melt application heads
Precise application even with difficult adhesives
- tesla - the electro-magnetic hotmelt application heads without compressed air
- Xmelt - energy-efficient and gentle melting of adhesives

Controllers and data



The controllers from Baumer hhs are the heart of any system, whether you are just applying glue or configuring complex applications that include quality monitoring and camera solutions. Production data and statistics help you keep your process under control at all times, and they can be shared via an interface with higher-level systems. Baumer hhs provides you with the right solution, so you can supply your own customers with perfect products.

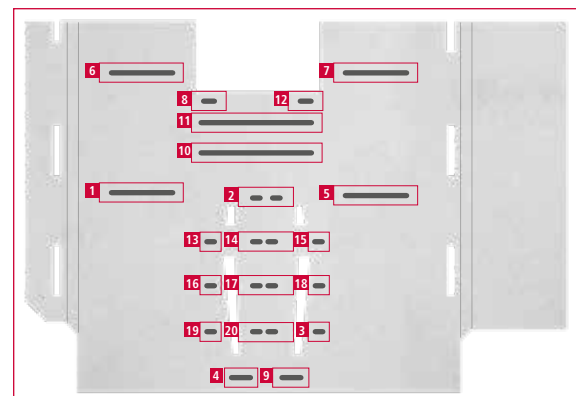
- Xact – controller for adhesive application for up to four channels and 300 m/min
- Xpect – adhesive application and quality control for up to eight channels and 650 m/min
- Xtend³ – modular controller for all requirements

Xcam: Camera solutions for every application



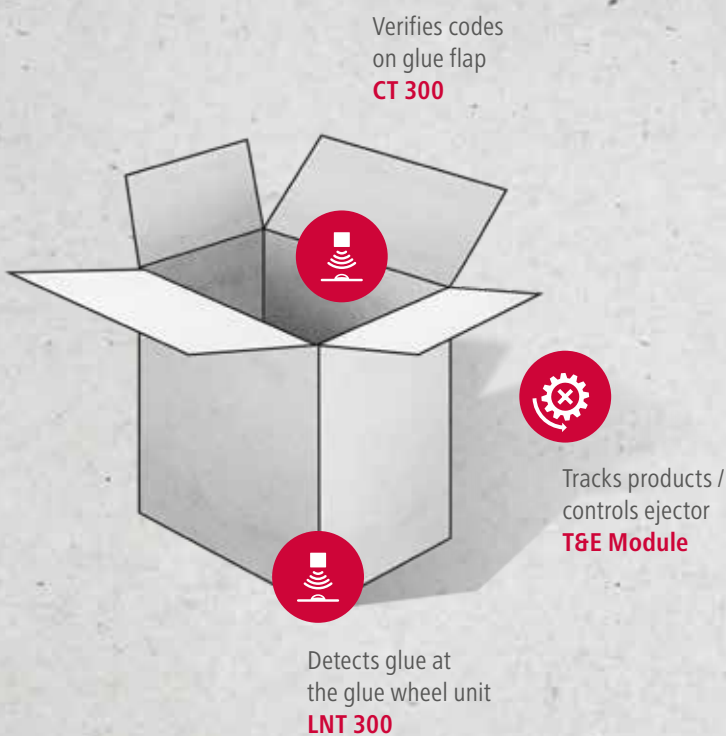
The Xcam systems handle a variety of monitoring tasks and can visualize and inspect complex gluing processes. They also monitor back-folded flaps, check edges and perform object verification. All of these functions are integrated in the intuitively operated Xtend³ controller and are easy to set up with just one click. A reporting function and an option for analysing defect images are naturally also included.

Monitoring adhesive application



Baumer hhs sets no limits on the possibilities open to customers

No matter what kind of products you have in mind: The systems from Baumer hhs for manufacturing folding cartons ensure process reliability, even with the most complex products – and at the highest required machine speeds.



Straight-line boxes

The straight-line box is the most common product in the folding carton industry. In most cases, high volumes of these boxes are produced at maximum machine speed. With Baumer hhs, you can rely on end-to-end monitoring of your production process. Product mix-ups and incorrectly glued joints are reliably identified and ejected.

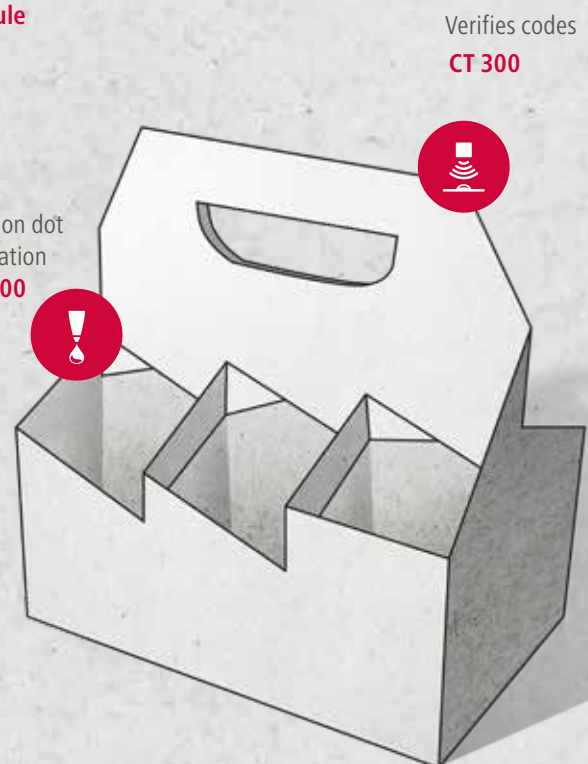
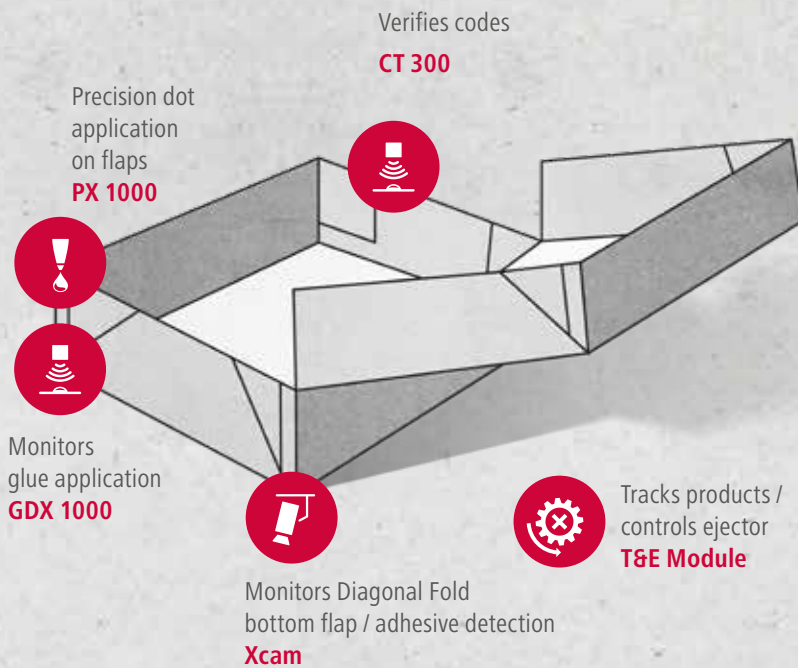
Crash-lock bottom box with hot melt and cold glue

Folding cartons can be designed as premium packaging with sophisticated finishes. Precision gluing on the bottom flap prevents inside gluing, to stop any problems from arising when erecting the boxes in the packaging line.



4- and 6-corner folding boxes

These popular folding cartons for food and consumer products, such as baked goods, sweets, fruit and vegetables, are precision-manufactured at high speeds. The adhesive is applied with maximum precision, even on small flaps. The Xcam verifies that all flaps are precisely folded.



Six-packs and special designs

Six-packs and other special designs put complex demands on gluing. For example, the adhesive may have to be applied by 16 or more application heads at several stations in a single folder-gluer.

High-tech folding mechanisms require precision dot application as well as monitoring equipment capable of reliably detecting even the smallest deviations. The Xcam camera equipment monitors all glue tracks and prevents the risk of inside gluing. Baumer hhs systems solve problems before you even identify them.



Assuring product quality



Optional control systems from Baumer hhs inspect every single product for defined features. Code readers identify packages to avoid mix-ups; glue sensors check for correct gluing immediately downstream of an application head. Defective products are tracked and ejected automatically without stopping the process.

- ULT 300 / GDx 1000 – Optical sensors for detecting dispersion adhesives, applied by nozzle
- HLT 300 – Detects hot melt adhesives
- LNT 300 – Microwave sensors for detecting dispersion adhesives in the side seam
- GDM 300 – Optical sensor for detecting a thin coating of adhesive applied on film-laminated surfaces
- CT 300 – Colour sensor for detecting colour codes on glue flaps
- AT 300 – Optical sensor for detecting codes on film-laminated surfaces
- Scan 400 – Optical scanner for detecting UPC codes
- Smart Sensor – Camera-based sensor for the optical verification of data matrix, QR and UPC codes



Reads and identifies various codes: data matrix, 2D, UPC, Pharmacode and QR.

Product tracking



The Baumer hhs system knows the status of every single product at any given time. Defective products are identified by sensors and cameras and tracked on their way through the folder-gluer so they can be reliably ejected. That minimises the number of rejects and ensures defect-free deliveries to your customers.

Precision tracking and ejection of defective products.

- LAW 200 linear ejector – universal ejector for all box types
- EMA 60 rotary ejector – ejector for compact folding cartons, e.g. pharmaceutical cartons

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.

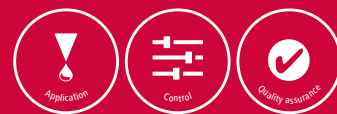
go



Controller: Xact

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

evo



Controller: Xpect

Either adhesive application (max. 8 heads),
or quality assurance:
Code reader: CT 30 XP, Tracking and Ejecting

pro



Controller: Xtend³

Up to 32 heads

Quality assurance: GDx 1000, HLT 300, CT 300,
Xcam, Smart Sensor

Combinable with all systems

Cold glue application heads: PX 1000, P 500, DLK go
Hot melt application heads: aerto, tesla

Conveying equipment

CG: DPP 8, KPE 9

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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