



The whole world of pharmaceutical packaging

The complete Uhlmann program –
Machines and lines, digital solutions, services

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75
YEARS

We ensure the global availability of sensitive products to improve the quality of life for generations.

This claim is what drives us. We have been developing customized solutions for the pharmaceutical industry for 75 years. Our innovations shape the world of pharmaceutical packaging and help to make medicines accessible worldwide.

As a leading systems supplier for the packaging of sensitive products in blisters, bottles and boxes, Uhlmann designs flexible, complete solutions for international pharmaceutical groups, generic manufacturers and contract packagers. We are experts in all products that require special protection against external influences such as temperature, humidity, unwanted use, counterfeiting or contamination.

Uhlmann stands for innovative, economically and ecologically sustainable packaging lines, comprehensive services and smart digital solutions. As a total solution provider, we provide consultancy services, project management and implementation from a single source and set standards in terms of quality, efficiency and plant availability.

Uhlmann: the whole world of pharmaceutical packaging. Since 1948.

For maximum pharmaceutical safety with maximum efficiency

Holistic packaging solutions for solids, parenterals ...



Packing various solid products in blisters and cartons, complete with final packaging

Blister machines

- B 200** max. 200/300* blisters/min.
- B 1240** max. 250 blisters/min.
- B 1330** max. 300 blisters/min.
- UPS 5** max. 400 blisters/min.
- B 1440** max. 500 blisters/min.
- B 1770** max. 700 blisters/min.
- B 1880** max. 1,300 blisters/min.

Cartoner

- C 130** max. 150 cartons/min.
- C 200** max. 200 cartons/min.
- C 2155** max. 150 cartons/min.
- C 2156** max. 150 cartons/min.
- C 2206** max. 200 cartons/min.
- C 2305** max. 300 cartons/min.
- C 2504** max. 500 cartons/min.

Track & Trace

- Serialization/Labeling**
- S 500** max. 300/500* cartons/min.

Aggregation

- T1**
- A1**

Stretch bander

- ES 60** max. 500 cartons/min. or 60 bundles/min.

Overwrapper

- EW 60** max. 500 folding cartons/min. or 60 bundles/min.

Case packer

- EC 12** max. 500 cartons/min. or 60 bundles/min. in 12 cases

Blister lines with blister and cartoning module

- BEC 200** max. 200/300* blisters/min. and max. 150/300 cartons/min.
- BEC 300** max. 300 blisters/min. and max. 150/300 cartons/min.
- BEC 400** max. 400 blisters/min. and max. 150 cartons/min.
- BEC 500** max. 500 blisters/min. and max. 300/500 cartons/min.
- BEC 700** max. 700 blisters/min. and max. 300/500 cartons/min.

Case packer with palletizer module

- ECP 12** max. 500 cartons/min. or 60 bundles/min. in 12 cases max. 6 palletizing cycles/min.

Secondary packaging of parenteral products in blisters or trays and cartons, complete with final packaging

Blister machines

- B 1240** max. 250 blisters/min.
- BLU 200** max. 200 blisters/min.
- BLU 400** max. 400 blisters/min.
- UPS 5** max. 400 blisters/min.

Cartoner

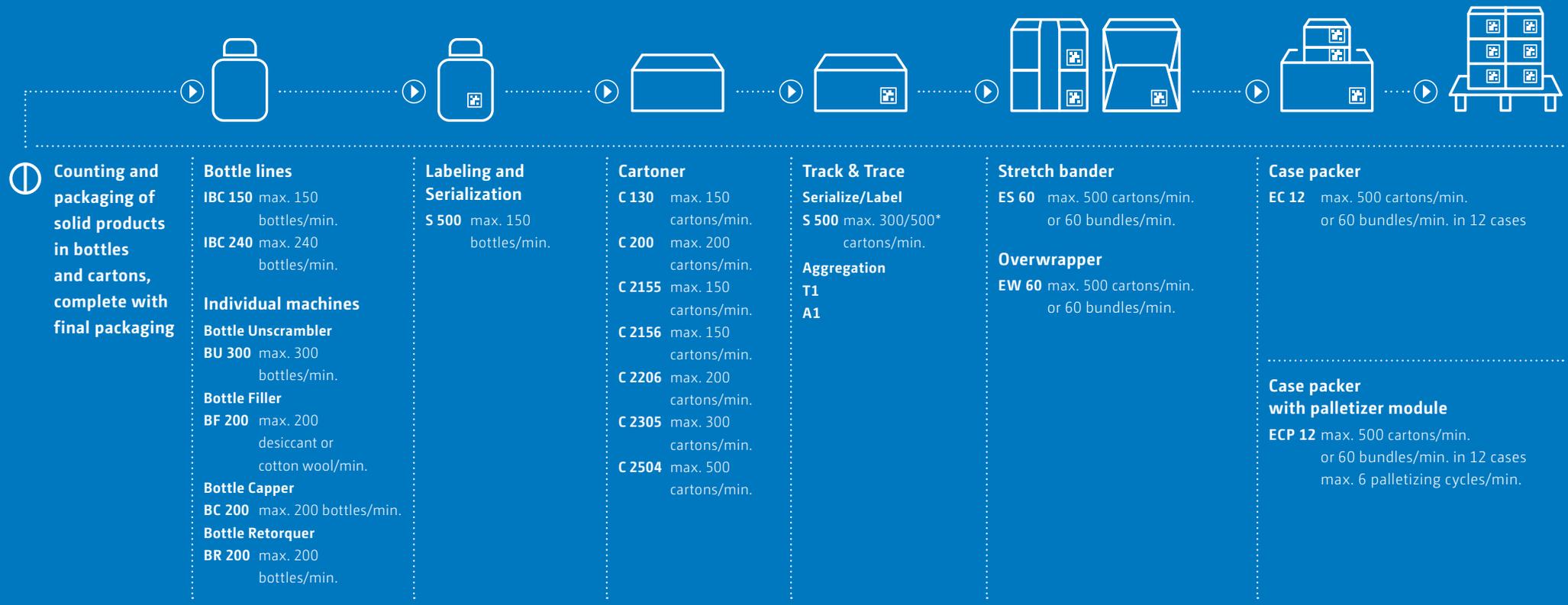
- C 130** max. 150 cartons/min.
- C 200** max. 200 cartons/min.
- C 2155** max. 150 cartons/min.
- C 2156** max. 150 cartons/min.
- C 2206** max. 200 cartons/min.
- C 2305** max. 300 cartons/min.
- C 2504** max. 500 cartons/min.

Packaging lines for parenteral products

- PTC 200** max. 200 trays/min. and max. 200 cartons/min.
- BLU 200** max. 200 blisters/min. and max. 200 cartons/min.
- BLU 400** max. 400 blisters/min. and max. 400 cartons/min.

*optional extension

... and bottles from a single source



Digital control of packaging lines with Pexcite from Uhlmann

*optional extension



The Uhlmann proprietary software platform Pexcite networks all Uhlmann systems and equipment in the packaging of pharmaceuticals – for greater transparency and maximum pharmaceutical safety.

The optimal solution for every requirement

Packaging solid products



Blister with 10 capsules

Specification: packaging with maximum output; optimum format layout.

Solid or parenteral products, standard blisters or special forms: we ensure that your pharmaceutical products arrive safely and efficiently in the desired packaging. Either with equipment and packaging lines from our regular portfolio or with individual solutions.



Bottled tablets

The specification: maximum efficiency in tablet feeding and subsequent packaging of the bottles in cartons.



Combination pack with blister, tubular bag and patient information leaflet

Specification: easy removal and reclosing, implemented with side-loading/top-opening carton. Additional printing of the blister and serialization of the carton.



Tropical blister with embossing

Specification: maximum packaging tightness in the smallest possible space. Plus optimal presentation through attractive packaging shape.



Large-format blisters for clinical studies in very small runs

Specification: successfully and safely pack the smallest 7 x 3 studies and enable simple, effective handling.

Reliable tracking from the packaging line to the patient with Pexcite Track & Trace.
More about Pexcite starting on page 64.

Packaging parenteral products



Unsealed clamp pack with clinical set
Specification: optimal hold and protection of ampoule and vial and quick removal.



Blister with perforation for syringes with needle protection
Specification: maximum protection of heat-sensitive substances.



Cardboard tray for ten vials
Specification: sustainable secondary packaging that enables ergonomic removal of the vials.



Carton for two vials
Specification: packaging two glass vials at the same time and in a way that is gentle on the product

Benefit from Uhlmann Services

- Development and implementation of concept and feasibility studies
- Integration of third-party machines and components into the packaging line
- Development of complex packaging
- Support for the definition of user requirements
- Project management and ongoing support
- Turnkey service – products and services from a single source

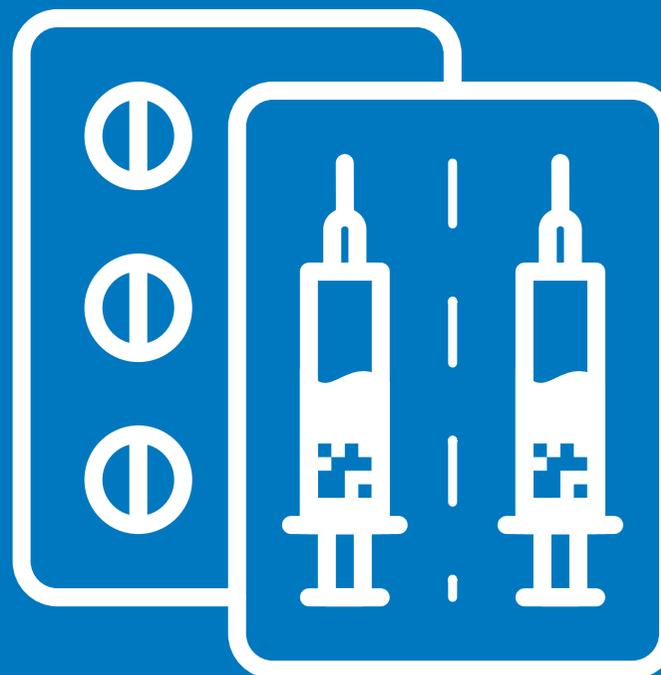
Sealed combination blister and Medical Device Tracking
Specification: processing PP mono film and reliable tracking of syringes from the packaging line to the patient

Sustainable pharmaceutical packaging



Pharmaceutical grade blisters machines

Performance that convinces: from small and flexible blister machines for quick batch changes through to complete machines in the medium performance segment to high-performance blister machines for the production of large batches. Fast format changes and intuitive user interfaces ensure maximum efficiency and line availability, while an integrated product control system is available as an option. With our portfolio of complete solutions, capsules, dragées and tablets can be packaged in blisters just as efficiently and GMP-compliant as vials, ampoules, syringes and pens.



At a glance – the Uhlmann blister machines

	Max. blisters/min.	Max. format area [feed x width]	Sealing principle	Application
Blister machine BLU 200	200	175 x 206 mm	Plate sealing	
Blister machine BLU 400	400	200 x 284 mm	Plate sealing	
Blister machine B 1240	250	130 x 156.5 mm	Plate sealing	
Blister machine UPS 5	400	272 x 284 mm	Plate sealing	
Blister machine B 200	200 or 300	200 x 145 mm	Plate sealing	
Blister machine B 1330	300	200 x 145 mm	Roller sealing	
Blister machine B 1440	500	200 x 284 mm	Plate or Roller sealing	
Blister machine B 1770	700	200 x 284 mm	Plate or Roller sealing	
Blister machine B 1880	1,300	280 x 284 mm	Plate or Roller sealing	



Blister machine BLU 200

Experience the
BLU 200 live



Pack ampoules, vials, cartridges, syringes and pens on a single line. Maximum product protection, with high productivity and low operating costs: the BLU 200 blister machine is the ideal entry-level model for highly flexible secondary packaging of parenteral dosage forms.



- Modular design for flexible packaging of even smaller batches
- Process-safe technology for optimal blister quality
- Optimal utilization of the format through product and blister rotation for less waste and maximum machine performance
- Wide range of configuration options
- Integration of printing and inspection systems also for Track & Trace functionalities
- UDI code reader can be integrated in the SyPro 2.0 syringe delivery system for Medical Device Tracking across the entire line to the pharmacy
- Intuitive SmartControl operating system

At a glance

Max. output	200 blisters/min.
Sealing principle	Plate sealing
Max. format area [feed x width]	175 x 206 mm
Max. forming depth	33 mm

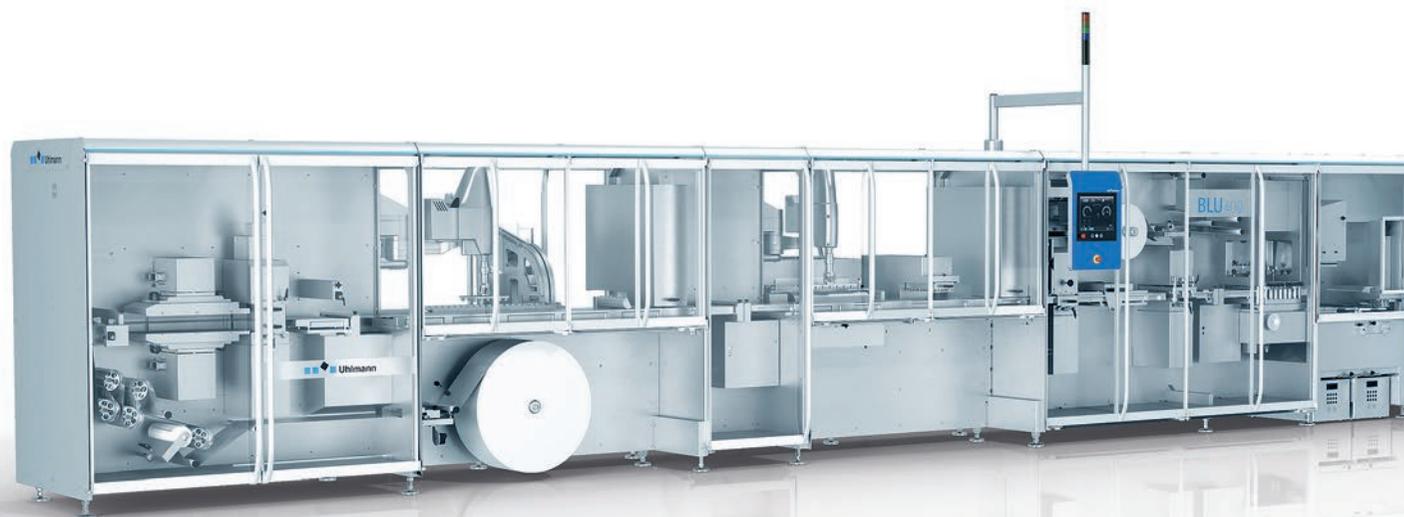


Blister machine BLU 400

Experience the
BLU 400 live



Gentle handling throughout the entire process, flexibility in processing a wide variety of dosage forms and diverse options for individual configuration. The BLU 400 is precisely geared to the requirements of the pharmaceutical market and packs with a consistently convincing level of performance.



- Modular and future-proof: whether feeding, filling line or transfer – there are hardly any limits to the individual configuration possibilities
- Compact machine design
- Sensitive handling avoids product damage, for example due to low drop heights in the feed system
- Arrangement of products lengthwise and crosswise to the film running direction for efficient use of the entire film width
- UDI code reader can be integrated in the SyPro 2.0 syringe delivery system for Medical Device Tracking across the entire line to the pharmacy
- Operation and changeover with little time and personnel expenditure

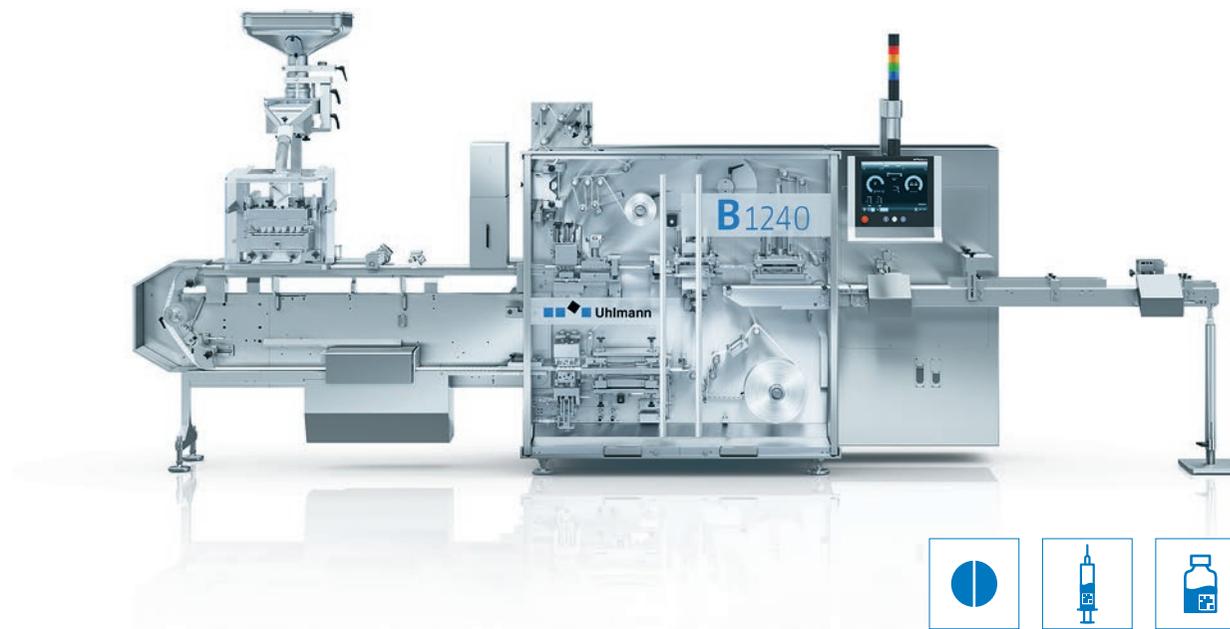
At a glance

Max. output	400 blisters/min.
Sealing principle	Plate sealing
Max. Format area [feed x width]	200 x 284 mm
Max. forming depth	42 mm



Blister machine B 1240

The secure basis for flexible, GMP-compliant packaging of solid and parenteral products with a convincing price/performance ratio. A proven machine concept with the technological standards of large blister machines.



Experience the
B 1240 live



- One to five lane operation
- Servo technology for main drive, feed and transfer
- Maximum production reliability and blister quality thanks to self-regulating drives
- Save all format-dependent data
- Perfectly matched extensions for almost all applications involving solid and parenteral products
- Small, lightweight tools
- Intuitive SmartControl operating system

At a glance

Max. output	250 blister/min.
Sealing principle	Plate sealing
Max. format area [feed x width]	130 x 156.5 mm
Max. forming depth	24 mm (thermoforming) 10 mm (cold forming)



Blister machine UPS 5

Products with special shapes or format or combination packs: the UPS 5 consistently continues the machine concept of the most successful and versatile Uhlmann blister machine to date, reliably and efficiently packaging solid dose products and parenteral product diversity.



Experience the
UPS 5 live



- Modular machine concept that can be expanded at any time
- Integration of various feeding systems for parenteral and solid products or medical technology accessories
- Quick-change format parts for format change without tools
- Very accessible due to innovative sliding and locking mechanism of the doors made of safety glass
- Intuitive SmartControl operating system



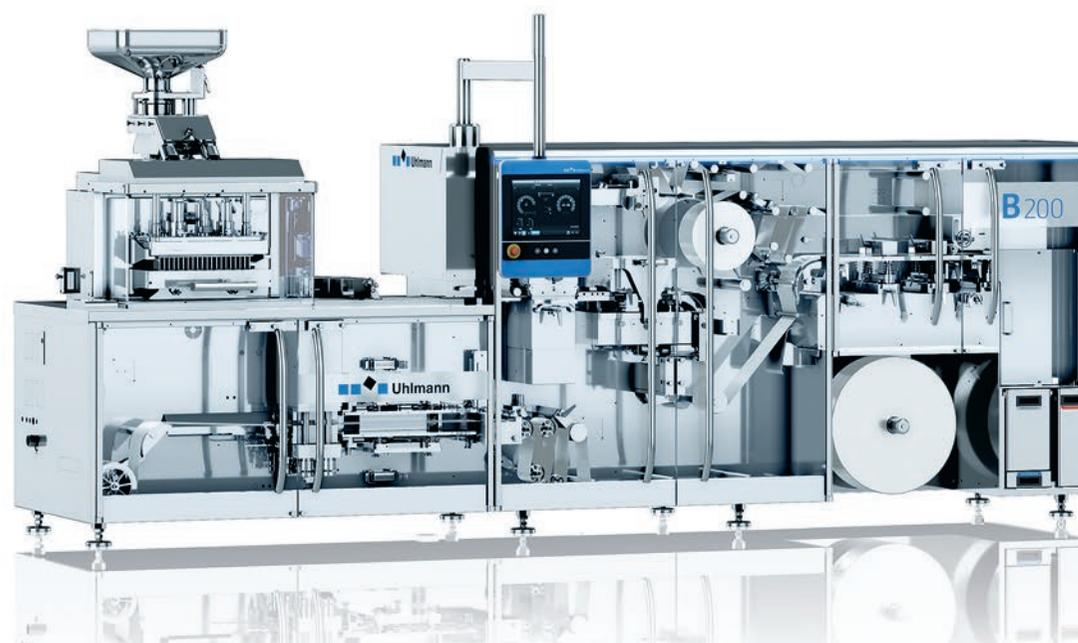
At a glance

Max. output	400 blister/min.
Sealing principle	Plate sealing
Max. format area [feed x width]	272 x 284 mm
Max. forming depth	40 mm (thermoforming) 12 mm (cold forming)



Blister machine B 200

The ideal entry model into the premium segment of economical solid packaging. With high blister quality, attractive price and great flexibility. For small batches in quick changeover as well as for unusual blister formats.



Experience
the B 200 live



- Highly economical due to short cleaning and changeover times
- Constant sealing time for highest process reliability and OEE, independent of the number of cycles
- Servo-controlled plate sealing for perfect blister quality even with demanding materials such as aluminum/aluminum or paper-laminated cover film
- Easily accessible forming and cover film roll receptacle for ergonomic working in the smallest possible space
- Optional performance upgrade to 300 blisters per minute
- Intuitive SmartControl operating system

At a glance

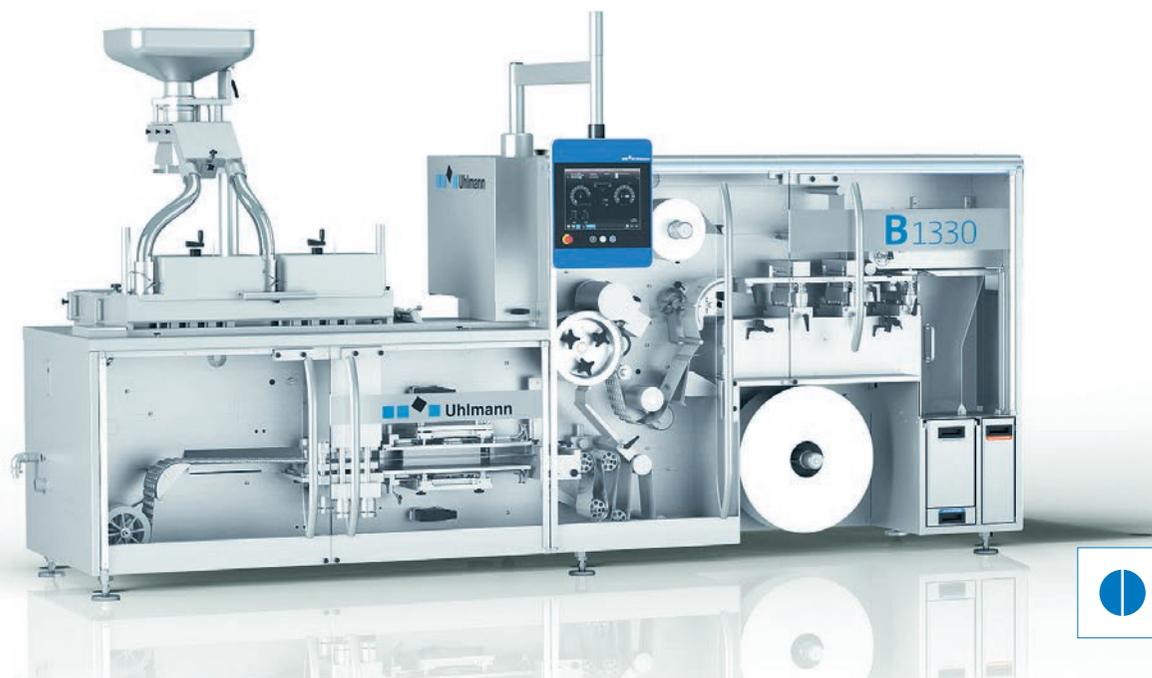
Max. output	200 or 300* blisters/min.
Sealing principle	Plate sealing
Max. format area [feed x width]	200 x 145 mm
Max. forming depth	12 mm (thermoforming) 10 mm (cold forming)

* optional extension



Blister machine B 1330

An integrated, compact system with short format changeover times and a simple operating concept for the economical packaging of different batches in the smallest possible space.



Experience
the B 1330 live



- Highly economical even for small orders
- One way operation
- Format independent heating station
- Servo controlled forming station
- Integrated product control system via color camera
- Easily accessible forming and cover film roll receptacle
- Servo-controlled roller sealing with excellent process reliability and blister quality
- Embossing, perforating and punching station in one unit
- Intuitive SmartControl operating system

At a glance

Max. output	300 blister/min.
Sealing principle	Roller sealing
Max. format area [feed x width]	200 x 145 mm
Max. forming depth	12 mm (thermoforming) 10 mm (cold forming)



Blister machine B 1440

An innovative, two-lane blister machine – along with the blister module of the BEC 500 (see page 39) – for end-to-end processes and format changeovers at the touch of a button. Highly flexible, with a maximum output of up to 500 blisters per minute.



- Optionally with roller sealing for all film types and standard blisters or with plate sealing for complex product shapes, large aluminum yards and calendar packs
- Servo-controlled stations for embossing, perforating and punching
- Horizontal film guidance for best ergonomics and high process reliability throughout the entire production process
- Constant forming and sealing time for highest blister quality, independent of the number of cycles
- Lightweight and confusion-proof tools in fail-safe design
- Format changeover from PVC to aluminum forming film at the push of a button
- Perfectly accessible for easy loading of material and easy cleaning
- Intuitive SmartControl operating system

At a glance

Max. output	500 blister/min.
Sealing principle	Plate or roller sealing
Max. format area [feed x width]	200 x 284 mm
Max. forming depth	12 mm (thermoforming) 11 mm (cold forming)



Blister machine B 1770

The B 1770 three-lane blister machine, also part of the BEC 700 blister line (see page 40), perfectly combines high performance and flexibility and processes different batch sizes reliably and at a constant output of up to 700 blisters per minute.



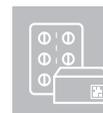
Experience
the B 1770 live



- Constant forming and sealing time for highest blister quality, independent of the number of cycles
- Coordinated feeds for all solid products
- Optionally with roller sealing for all film types and standard blisters or with plate sealing for complex product shapes, large aluminum yards and calendar packs
- Servo-controlled stations for embossing, perforating and punching, freely accessible from the operator side for fast format changes
- Few, light and confusion-proof tools in poka-yoke design
- Intuitive SmartControl operating system

At a glance

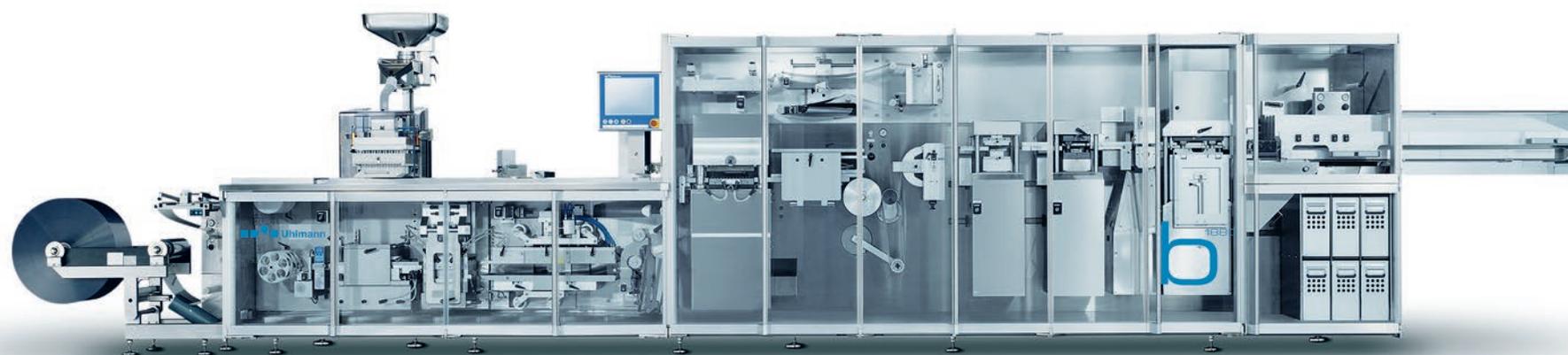
Max. output	700 blister/min.
Sealing principle	Plate or roller sealing
Max. format area [feed x width]	200 x 284 mm
Max. forming depth	12 mm (thermoforming) 11 mm (cold forming)



Blister machine B 1880

Faster, more ergonomic, more economical. Currently the fastest blister machine in the world, the B 1880 sets benchmarks in terms of volume production. For assured, continuous productivity when processing large batches.

Experience
the B 1880 live



- With intermittent plate sealing for special cover films and laminates as well as for calendar packs
- With roller sealing for the production of standard blisters with symmetrical products
- One, two or three lane mode of operation
- Entire media guide in the machine frame
- Clean room atmosphere thanks to guided air and heat dissipation
- Shatterproof safety glass for best product and operator protection
- Perfectly accessible due to sliding and closing mechanism of the doors
- Intuitive SmartControl operating system

At a glance

Max. output	1,300 blister/min.
Sealing principle	Plate or roller sealing
Max. format area [feed x width]	280 x 284 mm
Max. forming depth	12 mm (thermoforming) 11 mm (cold forming)



Pharmaceutical grade blister quality

Blister machines from Uhlmann process all forming and lidding films reliably and precisely. As a total solution provider, we support you in foil selection and blister design and take care of the optimum setting values. And of course we also implement child-safe packaging (e.g. peel-and-push blisters or tropical blisters) as well as blisters made of sustainable films.



Simple singling of the blister cavities thanks to precise perforation

Blister marking via embossing stamp or printing system



Reliable Medical Device Tracking

All components packed to be clearly visible

Tear tab for easy opening



Perfect protection for any single product

Stiffening ribs for dimensionally stable blisters

Individual marking the back of the blister via Inline cover printing



Feeds and control systems

Particularly sensitive tablets, solid products with complex geometries, oblongs, multiphase preparations, ampoules, vials, syringes: the range of efficient feeding systems is as diverse as the product spectrum. For convincing performance from the very first process step.

At a glance – the feeders for Uhlmann blister machines

	Product forms	Packing	Power	Application
LiPro feeder	Ampoules, vials, cartridges and vials	Blister, cardboard trays	up to 1,450 products/min.	
SyPro feeder	Syringe sizes with diameters from 6,5 to 26 mm	Blister, cardboard trays	up to 400 syringes/min.	
Brush box feeder	Convex solids and capsules	Blister	In many cases the most economical solution	
Vibratory feeder	Solids with simple geometries such as tablets, oblongs or capsules	Blister	All-rounder for good compromise between performance and effort	
SimTap feeder	Solid products with simple and complicated geometries	Blister	Most flexible and powerful feed	



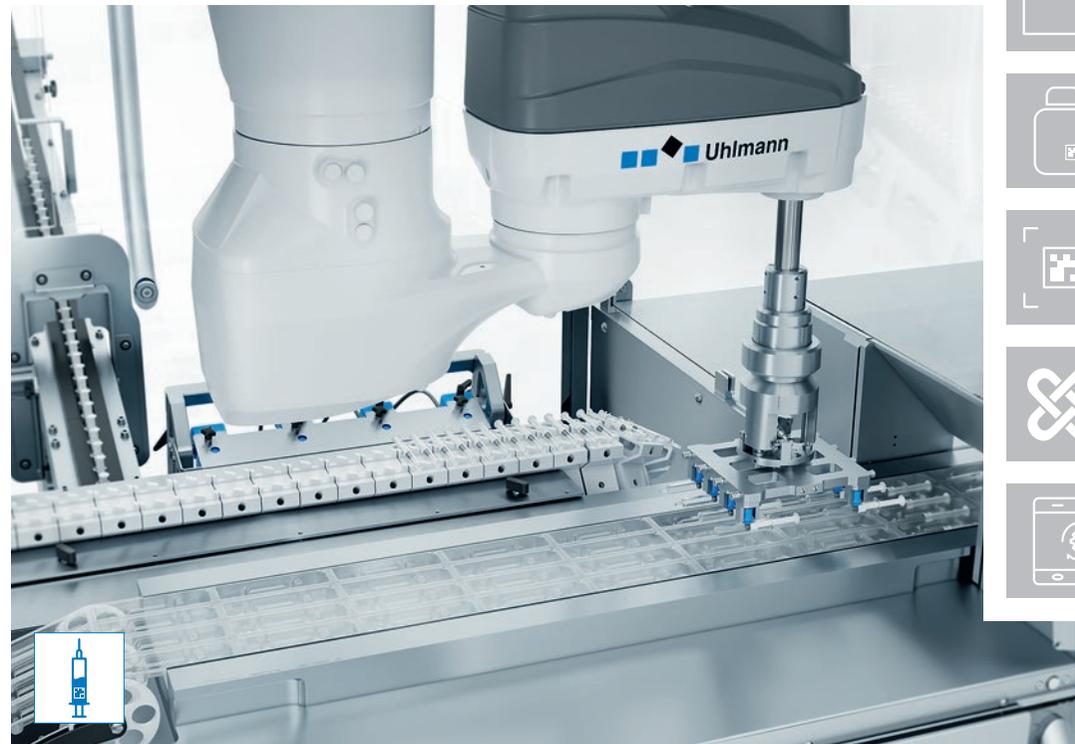
Product-friendly feeders for parenteral products



The **LiPro feeder** inserts vials, cartridges and ampoules into the blister pockets with high performance and optimal product protection.

The **SyPro 2.0+ feeder** inserts syringes safely and gently into the formed film. For Medical Tracking via the entire line to the end user, an UDI code reader can be integrated.

Experience
the SyPro
feeders live



Powerful feeders for solid products



The **brush-in feeder** is suitable for thermoforming foils and can be used on both continuous and intermittent blister machines.



The **Vibratory feeder** feeds tablets and capsules with simple geometries efficiently and with a high fill level. The entire process can be easily viewed by the operating personnel.



The **SimTap 4 feeder** feeds a wide variety of solid product shapes into the film pockets reliably, gently and precisely. A brush-in box can be attached to the basic module of the SimTap 4 in just a few steps. This means that two feeding principles can be implemented with one basic module – for particularly economical and efficient packaging.





The color inspection system **VisioChrom** checks presence, position and color fastness and inspects up to 2,000 products per cycle.

Inspection systems for safe pharmaceutical packaging

Highest safety with highest output: Uhlmann consistently lives up to this claim. With precisely tailored inspection systems for all process steps within the packaging lines. The inline control systems support quality assurance and provide impulses for continuous optimization of production set-ups. Continuous, in real time and at full machine speed

- **Product inspection for solid products and parenteral products:** optimized for an output of up to 2,000 products per cycle, the systems VisioChrom or VisioRead Color check a variety of criteria: presence, shape, color and dimensions of the products as well as any damage or the presence of foreign particles. The inspection systems are designed in accordance with 21-CFR-Part-11 and allow storage of up to 500 products.
- **Film inspection:** the IR-based film inspection system reliably detects material defects > 10 µm at throughput speeds up to 3.75 m/sec. and scans all common materials such as aluminum, hard paper, opaque PVC and other opaque materials for cracks and holes. New materials can be taught in at any time via the Uhlmann calibration service.
- **Quality checks:** general inspections such as position analyses, measurements or completeness checks of complex products such as dispensers and syringes can be performed quickly and reliably with Uhlmann inspection systems. High-resolution cameras of up to 20 MP inspect – with full audit trail capability – objects of all kinds.



VisioScan detects film damage from as little as 10 µm and thus offers the best protection from invisible packaging defects.



Practical cartoner

Whether blisters with solid products or with parenteral products in different primary packaging, bottles with package inserts, booklets or application aids: Uhlmann cartoners in intermittent or continuous mode of operation pack in a highly precise and confident manner, even with critical carton qualities. This is because Uhlmann has the patents for application-oriented productivity and pharmaceutical safety. For example, rotary carton removal or the innovative construction of the carton using the prebreak function.

Another plus of the Uhlmann cartoners: all markings and inspection systems can be integrated into the cartoning process in a space-saving manner. This ensures additional efficiency when embossing tuck-in flaps, labeling sealed cartons, and marking cartons with fixed or variable data, for example to meet Track & Trace requirements.



At a glance – the Uhlmann cartoners

	Max. cartons/min.	Max. carton size [A x B x H]	Mode of operation	Application
Cartoner C 130	150	100 x 85 x 150 mm	intermittent	  
Cartoner C 200	200 120	85 x 105 x 250 mm 180 x 105 x 250 mm	intermittent	 
Cartoner C 2155	150	115 x 100 x 170 mm	intermittent	  
Cartoners C 2156, C 2206	150 200	130 x 100 x 250 mm 130 x 100 x 200 mm	continuous	  
Cartoners C 2305, C 2504	300 500	105 x 105 x 155 mm 80 x 90 x 155 mm	continuous	  

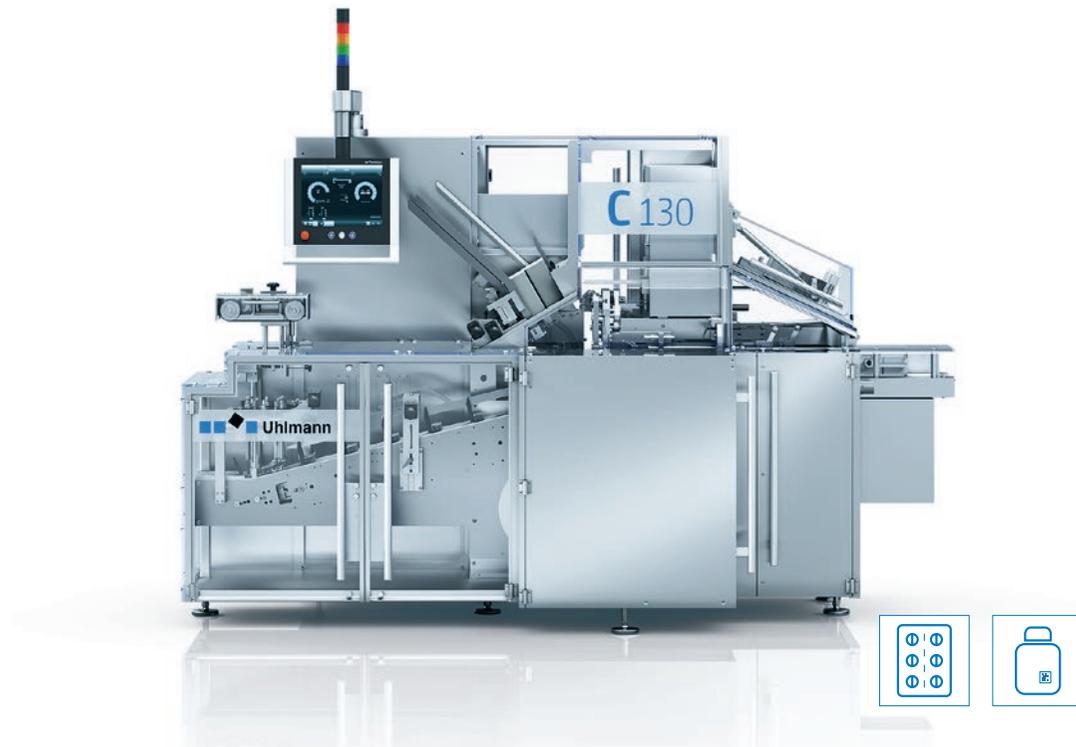


Cartoner C 130

Experience the C 130 live



The smallest intermittently operating Uhlmann cartoner for packaging blisters in small to medium runs – with high process reliability and a long service life.



- Compact machine design for easiest cleaning and highest pharmaceutical safety
- Continuous packaged goods chain
- Reliable production, especially with different board qualities
- Insertable and hot glue closure realizable
- Very accessible for easy maintenance and quick product and format changes
- New pollution concept for reduced noise emission
- Easy to use

At a glance

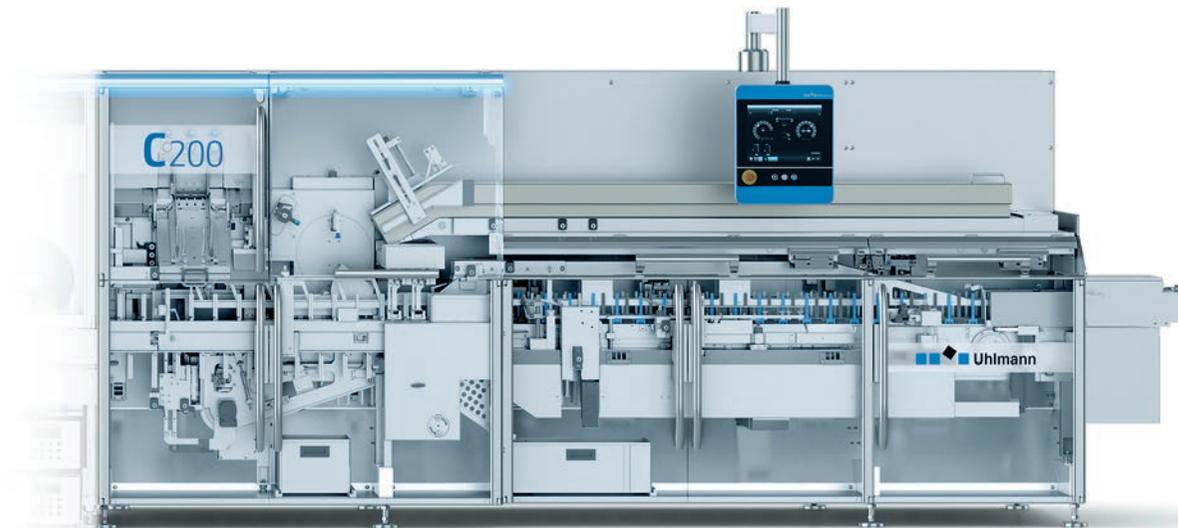
Max. output	150 cartons/min.
Mode of operation	intermittent
Max. carton size [A x B x H]	100 x 85 x 150 mm
Pitch	5"



Cartoner C 200

Perfect for sensitive parenteral products: The Cartoner C 200 packs syringes, ampoules, vials, cartridges and pens gently, quickly and efficiently in cartons. Either in sealed blisters, as unsealed clamp packs or completely without outer packaging (Direct in Carton).

Experience
the C 200 live



- Compact machine design for easiest cleaning and highest pharmaceutical safety
- Large format area
- Twin Speed capability with double product feed via two inserters
- Insertable and hot glue closure possible
- Integration of Track & Trace functionalities
- Event driven operation
- Very accessible for easy maintenance as well as for fast product and format changes
- New pollution concept for reduced noise imissions
- Intuitive SmartControl operating system

At a glance

Max. output	200* cartons/min. 120 cartons/min.
Mode of operation	intermittent
Max. carton size [A x B x H]	85 x 105 x 250* mm 180 x 105 x 250 mm
Pitch	100* mm, 4" 200 mm, 8"

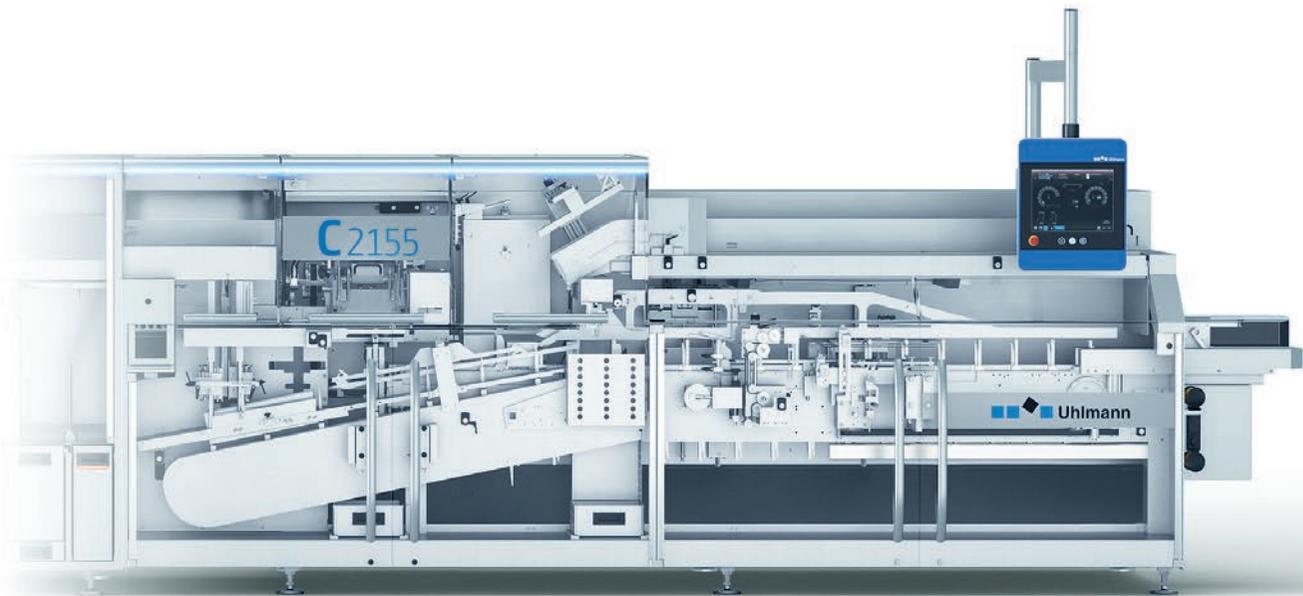
* optional extension



Cartoner C 2155

A clocked cartoner of the latest machine generation with extremely simple operating functions. Maximum reliability when packaging blisters, bottles, vials or tubular bags.

Experience the
C 2155 live within the
packaging line BEC 400



- Leaflet feeder and product insertion with servo drive
- Carton magazine for approx. 1,500 cartons
- Rotary carton removal with mechanical pre-crushing
- Interchangeable capping station: easy changeover from tuck-in to hotmelt closure
- Integration of Track & Trace functionalities
- Very accessible for easy maintenance and cleaning
- Fast format changeover – thanks to fewer, easily replaceable format parts
- Intuitive SmartControl operating system

At a glance

Max. output	150 cartons/min.
Mode of operation	intermittent
Max. carton size [A x B x H]	115 x 100 x 170 mm
Pitch	140 mm



Cartoners C 2156 and C 2206

Two continuously operating cartoners at 6" pitch with a wide range of applications – ideal for the highly productive, reliable packaging of a wide variety of products and processing of all carton qualities.



- For bottles, vials, pouches, pens, large blisters, etc. with horizontal product transport
- Patented rotary folding carton take-off with mechanical pre-crushing
- Balcony construction, lined with V2A on the inside
- Safe processing of all board qualities
- Insertable and hot glue closure realizable
- Integration of Track & Trace functionalities
- Central adjustment and central clamping systems
- Fast format changeover due to few, easily exchangeable format parts
- Very accessible for easy maintenance and cleaning
- Intuitive SmartControl operating system

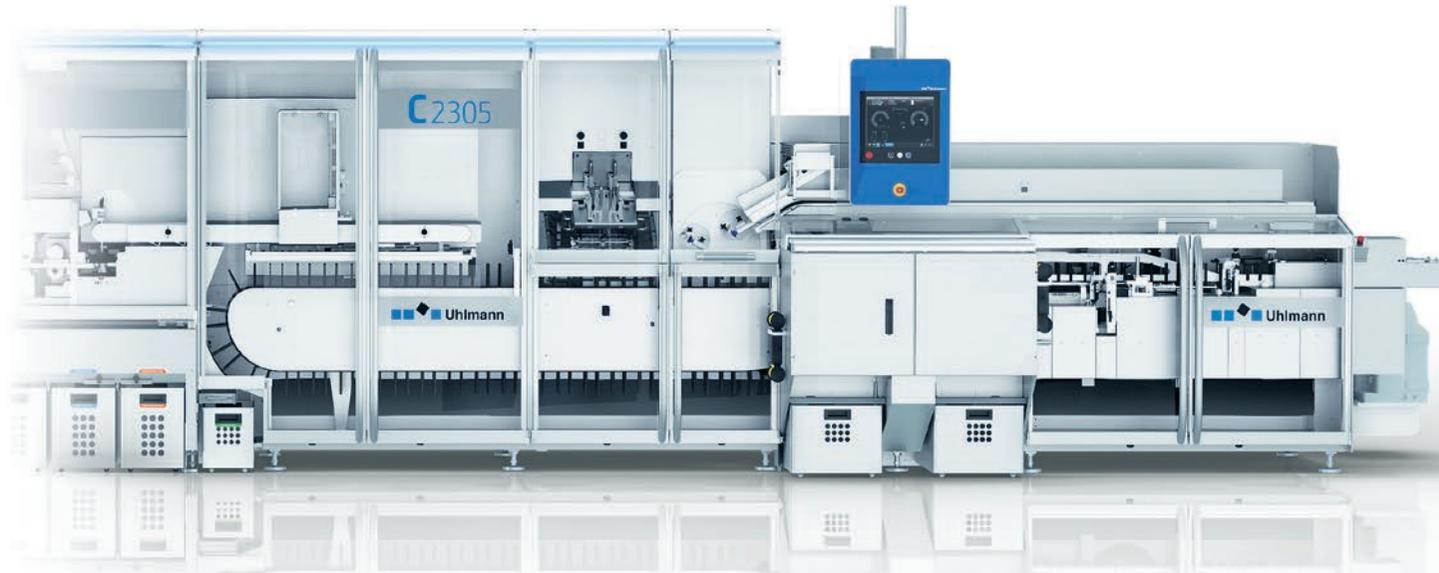
At a glance	C 2156	C 2206
Max. output	150 cartons/min.	200 cartons/min.
Mode of operation	continuous	continuous
Max. carton size [A x B x H]	130 x 100 x 250 mm	130 x 100 x 200 mm
Pitch	6"	6"



Cartoners C 2305 and C 2504

The world's fastest cartoners ensure top results when it comes to the processing of bulk in-house or contract packaging orders. As continuously operating machines, they stand for productivity, quality and efficiency.

Experience the C 2305 and the C 2504 live within the BEC 700 packaging line



- Intelligent product loading, automatically adjustable to different stacking heights
- Leaflet folder encapsulated for reduced noise level
- Height-adjustable folding carton magazine for convenient operation and cleaning
- Insertable and hot glue closure possible
- Integration of Track & Trace functionalities
- Perfectly accessible thanks to innovative safety gate concept
- Automatic setting of all format-dependent stations for a maximum of 15 minutes changeover time
- Intuitive SmartControl operating system

At a glance	C 2305	C 2504
Max. output	300 cartons/min.	500 cartons/min.
Mode of operation	continuous	continuous
Max. carton size [A x B x H]	105 x 105 x 155 mm	80 x 90 x 155 mm
Pitch	5"	4"



Unique serialization and tracking codes can be realized with Pexcite Track & Trace
 More about Pexcite starting on page 64.

Closure systems for cartons

Various options are available for the closure mechanisms: from a simple tuck-in closure and hot gluing to safety closures such as a fourth flap or combined variants, for example a tamper-evident closure using the 2-shot process. In addition, sleeves can be filled or folding cartons processed according to the side-loading/top-opening principle.



Tuck-in closure with airplane flaps



Combination tuck-in and hot melt closure*



Hot melt closure* with fourth flap – reclosable

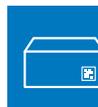


Tuck-in closure with reversed flaps



Double-sided hot melt closure*

* A combination of hot melt and cold gluing is also possible



Feeders for cartoners

Blisters with tablets or parenteral dosage forms, bottles, vials, pouches, pens, sachets and other product forms: Uhlmann has the right feeding system for every packaging shape and addition. And the right accessories for every cartoner.



Feeding system for blisters: tried and tested, versatile for a wide range of blister formats

Feeders for blisters and vials etc.



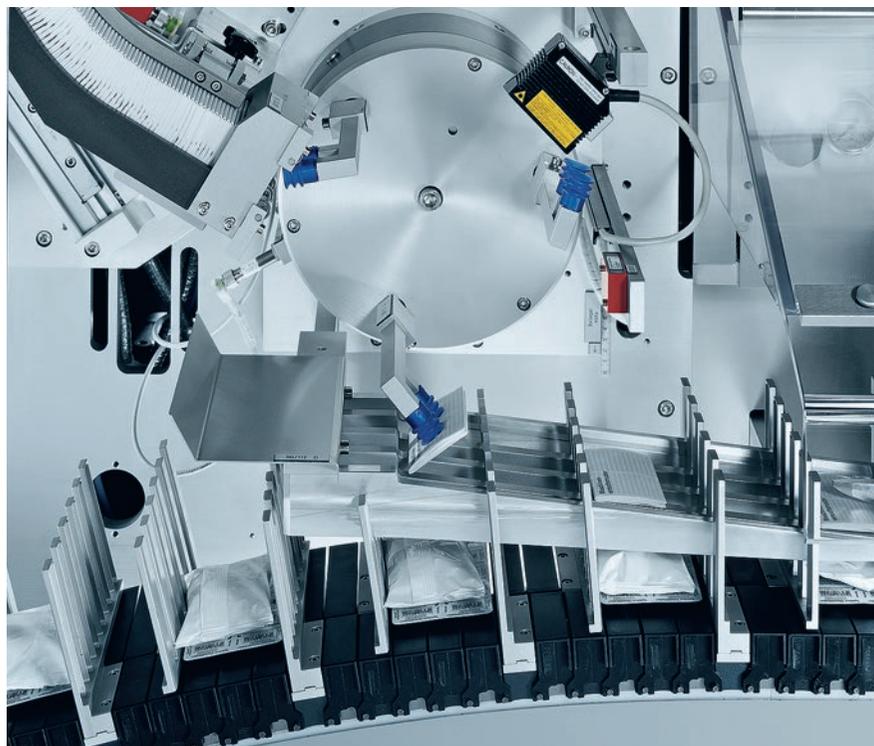
Gentle product feeding for glass and plastic bottles: directly interlinked or via an accumulation table



Feeding units for additions

- **Feeding system for blisters** – reliable stacking of blisters by means of plug-in blister magazines – efficient for solid blisters and sealed ampoule blisters
- **Feeding system for wallets and pillow packs** – using a special conveyor for all rectangular products that cannot be stacked
- **Feeding system for bottles, vials and ampoules** – for round, rectangular or oval shapes via feed screw
- **Feeding system for unsealed ampoules and syringe blisters** – synchronized blister loading into the product chain
- **Feeding and robotic systems** – for spoons, pipettes, pens, pillow packs, and other pharmaceutical devices
- **Rotary brochure feeder** for the reliable handling of folded or glued booklets
- **Slider feed** - for optimal processing of multilayer booklets

Rotary booklet feeder for processing folded and glued booklets

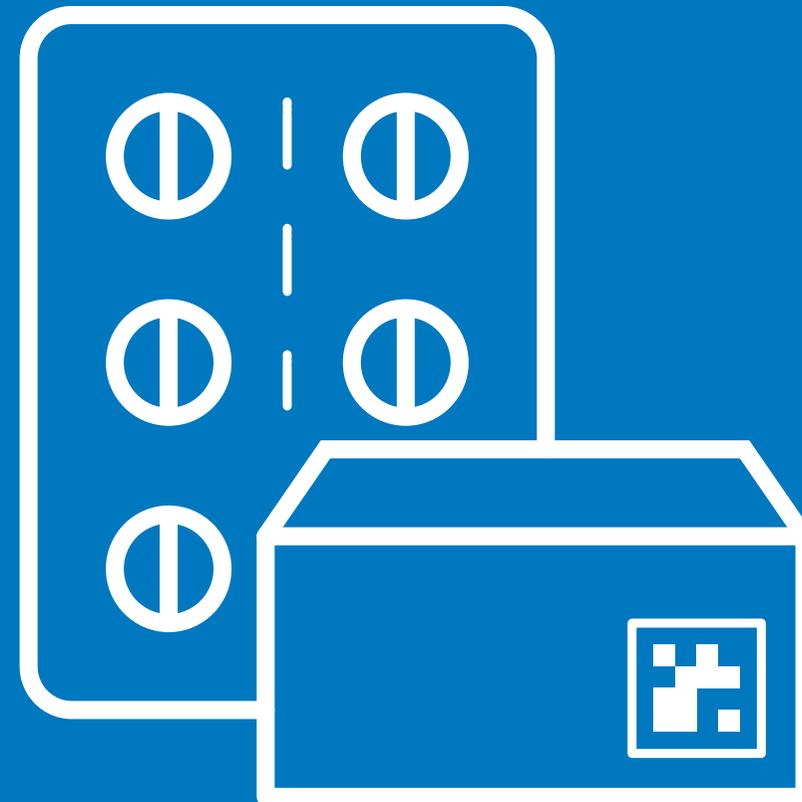


Magazine for multilayer, glued or rolled booklets



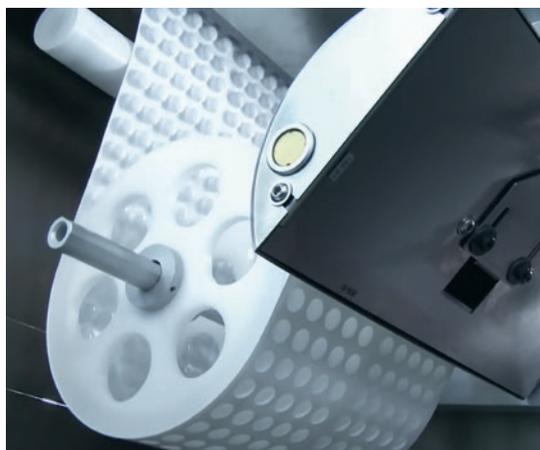
Integrated systems for packing solid products

Pharmaceutical markets worldwide are increasingly calling for regionally and target group-specific adapted packaging variants. Uhlmann's answer to the demand for flexible packaging of constantly changing solid runs with maximum output: the BEC 200, BEC 300, BEC 400, BEC 500 and BEC 700 blister lines with graduated output levels. Five integrated systems with blister and cartoning module – compactly built, designed for fast format changes and with simple, intuitive operating concept.



At a glance – the Uhlmann blister lines for solid products

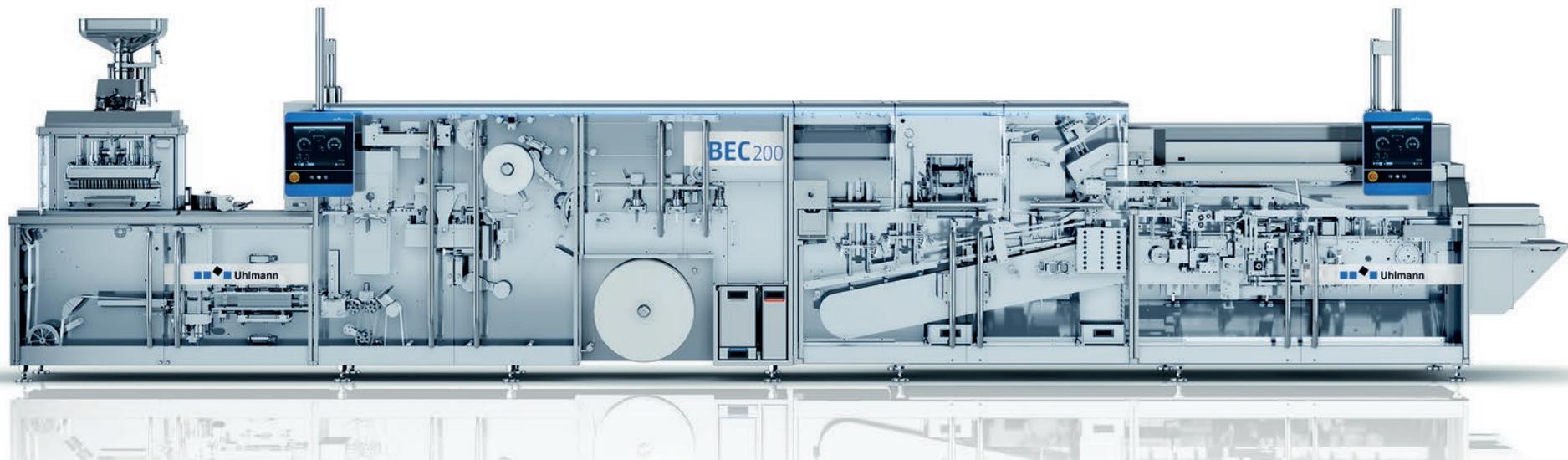
	Max. output	Minimum length	Batch size	Max. Format range blister module [Feed x Width]
Blister line BEC 200	200 or 300 blister/min. 150/300 cartons/min	8.7 meters	2000–50,000 packages	200 x 145 mm
Blister line BEC 300	150/300 blister/min. 150/300 cartons/min	7.9 meters	up to 70,000 packages	200 x 145 mm
Blister line BEC 400	400 blister/min. 150 cartons/min	8.4 meters	30,000–150,000 packages	200 x 284 mm
Blister line BEC 500	500 blister/min. 300/500 cartons/min	9.8 meters	from 150,000 packages	200 x 284 mm
Blister line BEC 700	700 blister/min. 300/500 cartons/min	10.3 meters	from 150,000 packages	200 x 284 mm



Blister line BEC 200

A perfect unit of blister machine and cartoner plus matching feeder. The ideal entry-level line for the variable, premium packaging of solid products, which can be expanded at any time.

Experience
the BEC 200 live



- Modular design for small batches from 2,000 to 50,000 packs and/or unusual blister formats
- Format changeover in 30 minutes thanks to fewer, lightweight format parts and exchange without tools
- Smooth surfaces for fast line clearance
- Future-proof with optional upgrade for higher output up to 300 blisters per minute
- Individual complete solution for the most diverse requirements
- Blister pockets up to 40 mm length, cartons up to 100 mm height
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

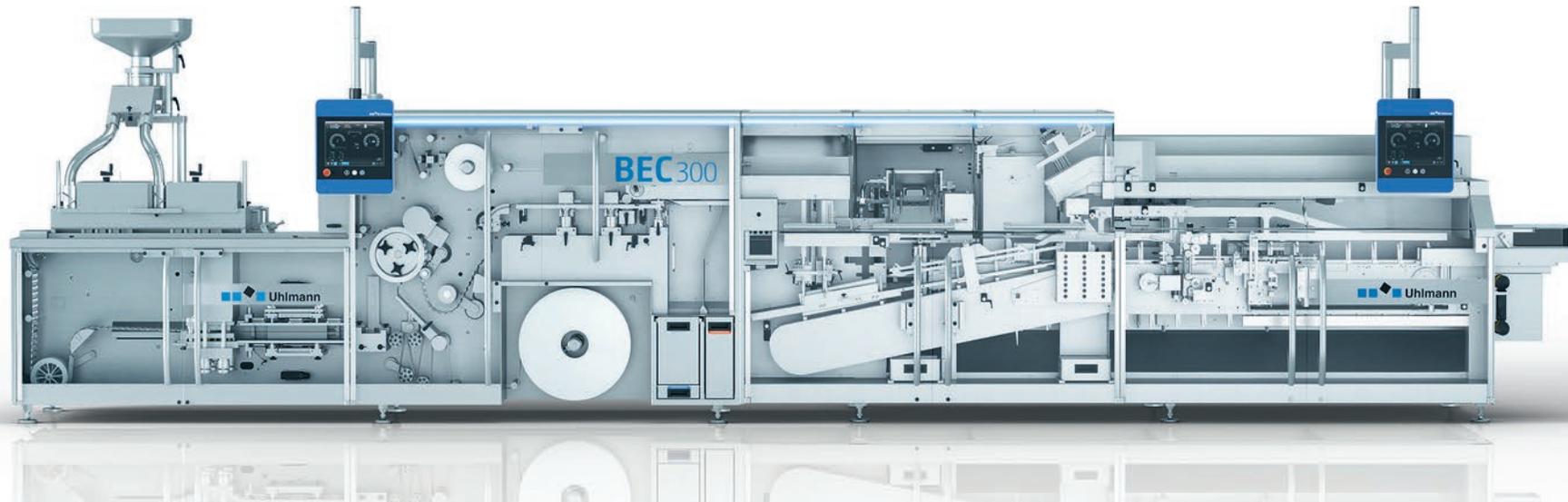
Max. output	200 or 300* blister/min. 150 cartons/min.
Max. format area [feed x width]	200 x 145 mm
Max. forming depth	12 mm (thermoforming) 10 mm (cold forming)
Max. carton size [A x B x H]	100 x 100 x 150 mm or 100 x 105 x 150 mm

* optional extension



Blister line BEC 300

Attractive price, very good production output and the usual first-class Uhlmann quality: clear advantages of a single-lane packaging line in which the blister and cartoner modules are perfectly networked over 8.4 meters.



- For solid products with batch sizes from 10,000 to 70,000 packs
- Wide range of applications for processing all common film types, product shapes, carton sizes and closure types
- Smooth surfaces for fast line clearance
- Latest control and drive generation
- Format changeover in 30 minutes thanks to fewer, lightweight format parts that can be replaced without tools
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

Max. output	300 blister/min. 150/300 cartons/min.
Max. format area [feed x width]	200 x 145 mm
Max. forming depth	12 mm (thermoforming) 10 mm (cold forming)
Max. carton size [A x B x H]	100 x 100 x 150 mm (150 cartons/min.) 100 x 105 x 150 mm (300 cartons/min.)



Blister line BEC 400

Great for blisters, blister stacks and cartons; small in terms of size, energy consumption and costs. The blister module processes blister sizes of up to 100 x 165 mm. At 105 x 100 x 170 mm, the cartoning module has the largest format area in the series, ideal for large-volume cartons and processing blister stacks up to 95 mm high in one box.



Experience
the BEC 400 live



- For solid products with batch sizes from 30,000 to 150,000 packs
- Two-lane operation with plate or roller sealing
- Fast format changeover without tools with possible takeover of the format parts of the blister module of the BEC 500
- Patented transfer from blister to cartoning module, even gentler on the product and more compact
- All options for integrating custom-fit printing and control systems
- All closure systems for cartons can be implemented
- Reduced energy consumption and optimized cleanroom separation of primary and secondary areas
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

Max. output	400 blister/min. 150 cartons/min.
Max. format area [feed x width]	200 x 248 mm
Max. forming depth	12 mm (thermoforming) 11 mm (cold forming)
Max. carton size [A x B x H]	105 x 100 x 170 mm



Blister line BEC 500

Sophisticated technology for maximum flexibility: the Blister line BEC 500. An integrated complete system with blister- and cartoning module, perfectly networked at just over ten meters. With two-lane operation, simple, fast format changes and consistent process times during forming and sealing – for consistently high blister quality.



- For solid products with batch sizes from 30,000 to 150,000 packages
- Low acquisition and operating costs with maximum process reliability
- Alternatively with plate or roller sealing
- Suitable for all closure systems – from tuck-in closure to hot gluing
- Tool-free format changeover in just 30 minutes
- Smooth surfaces and clear balcony design for easy cleaning and good accessibility
- Modular design of the basic machine for individual configuration
- Optional integration of marking and control systems or a feeder for additional inserts
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

Max. output	500 blister/min. 300/500 cartons/min.
Max. format area [feed x width]	200 x 284 mm
Max. forming depth	12 mm (thermoforming) 11 mm (cold forming)
Max. carton size [D x W x H]	105 x 105 x 155 mm (300 cartons/min.) 80 x 90 x 155 mm (500 cartons/min.)



Blister line BEC 700

Regionally and target group-specific adapted packaging formats and batch sizes are one thing. Ever shorter, highly efficient production cycles the other. The compact BEC 700 is the answer to both. The powerhouse blister and cartoner module follows the proven line concept of the BEC class and, thanks to its three-lane operation, packs up to 700 blisters per minute.

Experience
the BEC 700 live



- Always packs efficiently and safely, whether small batches in quick change or large runs in continuous operation
- Full performance on all film types, rigid product shapes, folding cartons and leaflets
- Tool-free format changeover in 30 minutes due to few format parts
- Automatic format setting on the cartoning module
- Leaflet folder can be pulled out to the front for easy format changeover, maintenance and service work
- Integrated line with compact footprint and around ten meters in length
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

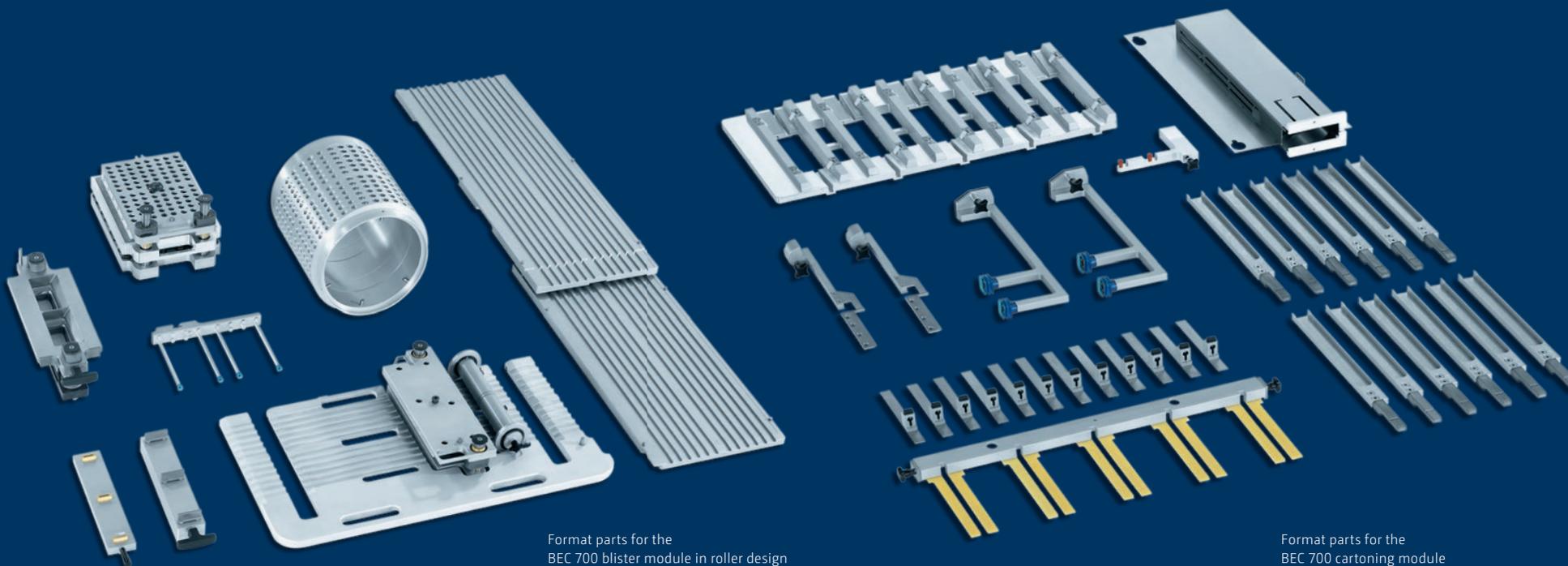
Max. output	700 blister/min. 300/500 cartons/min.
Max. format area [feed x width]	200 x 284 mm
Max. forming depth	12 mm (thermoforming) 11 mm (cold forming)
Max. carton size [A x B x H]	105 x 105 x 155 mm (300 cartons/min.) 80 x 90 x 155 mm (500 cartons/min.)



Ensuring the right tool in
 the right place at the right time:
 Tool Management with Pexcite.
 More about Pexcite starting on page 64.

Format changes: fast, simple and safe

Uhlmann blister lines need just few format parts – which can be changed quickly and easily. Original Uhlmann format parts stand for reliability and top quality. For fast commissioning at your site, we test all tools under real production conditions on Uhlmann machines. Adjustment to new blister and carton formats takes place at the push of a button. The integrated batch management ensures that product-dependent format data only has to be entered once and is immediately available at all operating units on the line.



Format parts for the
 BEC 700 blister module in roller design

Format parts for the
 BEC 700 cartoning module

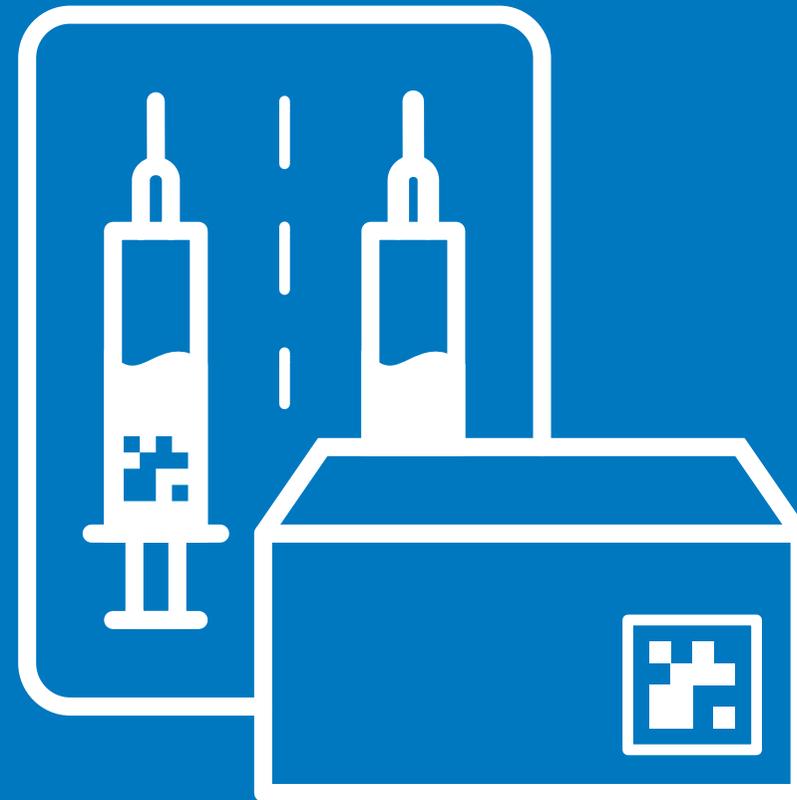


Productive lines to the Secondary packaging of parenteral products

Whether syringes, ampoules, vials or pens: parenteral dosage forms are highly sensitive and the demands on the packaging process are correspondingly high. Uhlmann responds to these requirements with two perfectly networked lines comprising a blister machine and a cartoner: the BLU 200 and C 200 along with the BLU 400 and C 2305. Both combinations are characterized by gentle product handling and pack a wide range of parenteral products safely, flexibly and economically.

The PTC 200 Parenteral Tray Center, which safely places parenteral products in trays made of cardboard, paper fiber and plastic and then packs them in cartons, ensures added sustainability.

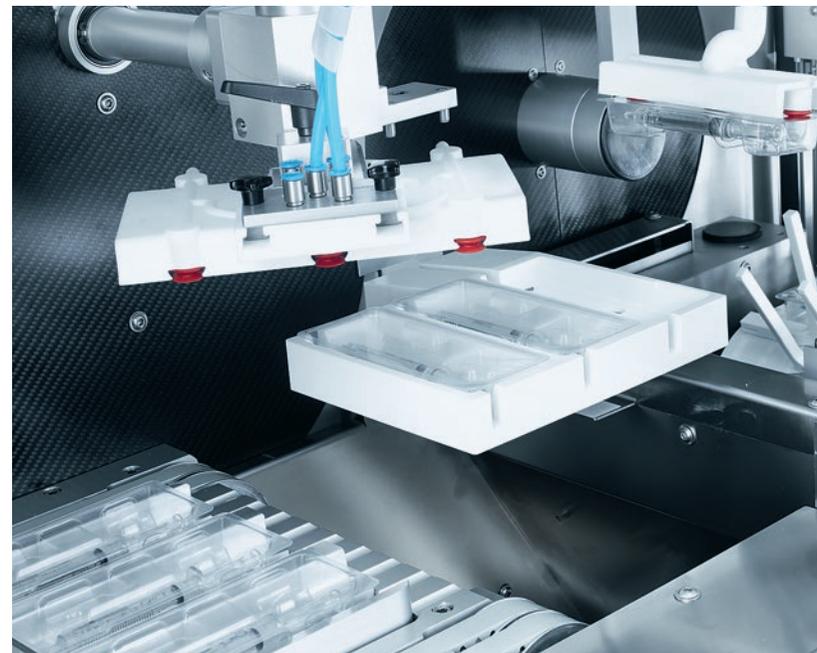
Medical Device Tracking for complete traceability of every product can be integrated into all packaging lines for parenteral products.



At a glance – the Uhlmann lines for packaging parenteral products

	Max. output	Minimum base module length	Batch size	Format area packages
Blister line BLU 200	200 blister/min. 120 or 200* cartons/min.	10.5 m	5,000–100,000 packages	175 x 206 mm [feed x width] 180 or 85* x 105 x 250 mm (carton format)
Blister line BLU 400	400 blister/min. 240 or 400* cartons/min.	11.6 m (without sealing) 13.2 m (incl. sealing) 15.8* m (incl. sealing)	from 30,000 packages	200 x 284 mm [feed x width] 105 or 80* x 105 or 90* x 155 mm (carton format)
Parenteral Tray Center PTC 200	120 or 200* trays/min. 120 or 200* cartons/min.	10.5 m	5,000–100,000 packages	175 or 80* x 245 mm (tray format) 180 or 85* x 105 x 250 mm (carton format)

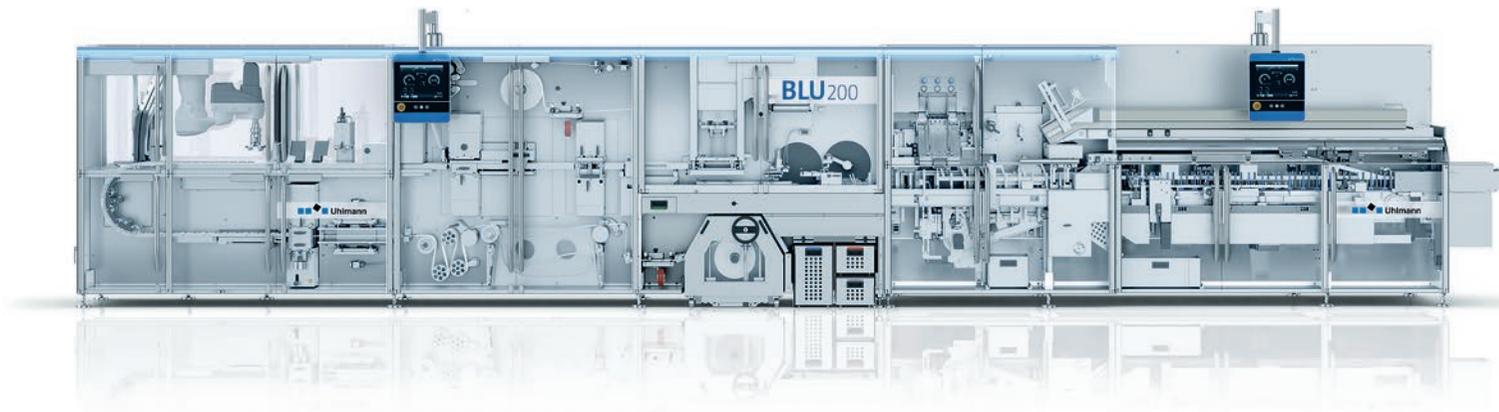
* optional extension



Blister machine BLU 200 and Cartoner C 200

With a modular concept, the ideal entry-level model for highly flexible secondary packaging of parenteral products. High productivity, simple operation and fast format changes guarantee the most economical solution in the medium output range. The BLU 200 processes ampoules, vials or syringes in all combinations at a rate of up to 200 blisters per minute.

Experience
the BLU 200 live



- Modular design for flexible packaging of even smaller batches
- Gentle product handling in every phase
- Configuration options for special applications and specific requirements
- Process-safe, state-of-the-art technology in all stations for reproducibly good results
- Product changeover with only a few format parts, fully automatic alignment of the stations
- High productivity due to easy cleaning and quick format changes
- Optimal utilization of the format through innovative product and blister rotation for maximum machine performance
- Integration of track-and-trace functionalities and Medical Device Tracking
- Intuitive SmartControl operating system

At a glance

Max. output	200 blister/min. 120/200* cartons/min.
Max. format area [feed x width]	175 x 206 mm
Max. forming depth	33 mm
Max. carton size [A x B x H]	180 x 105 x 212 mm

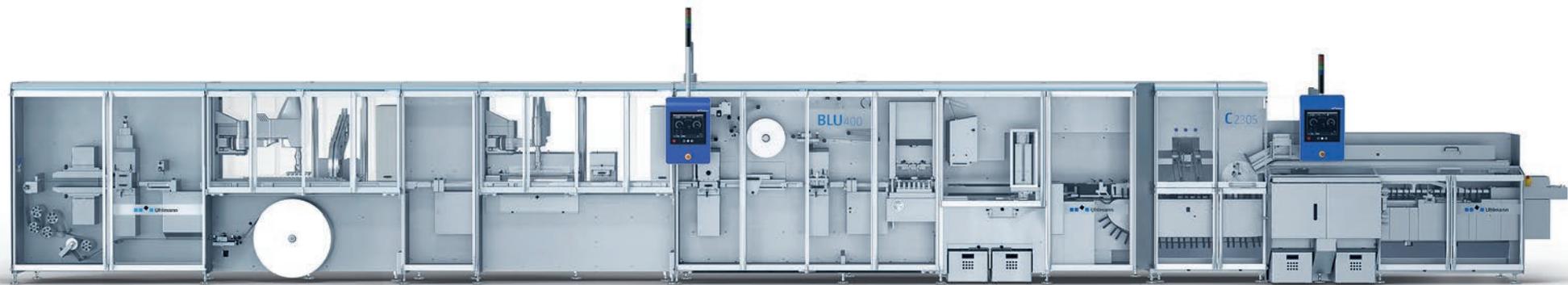
* optional extension



Blister machine BLU 400 and Cartoner C 2305

Product-friendly operation throughout the entire process, flexibility in processing a wide variety of dosage forms, diverse options for individual configuration: The line consisting of the Blister machine BLU 400, coordinated feeder and Cartoner C 2305 sets standards in the secondary packaging of parenteral products – also in terms of productivity.

Experience
the BLU 400 live



- System combination for gentle, efficient packaging of different batch sizes
- Full performance with glass or plastic syringes, pens, ampoules, vials, refillable auto-injectors
- Plate sealing with instant cooling to protect temperature-sensitive contents
- Single to eight-lane operation with product rotation for the best possible utilization of the film width
- Rotary transfer of only complete blister stacks to the cartoner with exact alignment for insertion into the carton
- Simple, tool-free changeover to other formats with automatic positioning of the stations
- Integration of Track & Trace functionalities and Medical Device Tracking
- Intuitive SmartControl operating system

At a glance

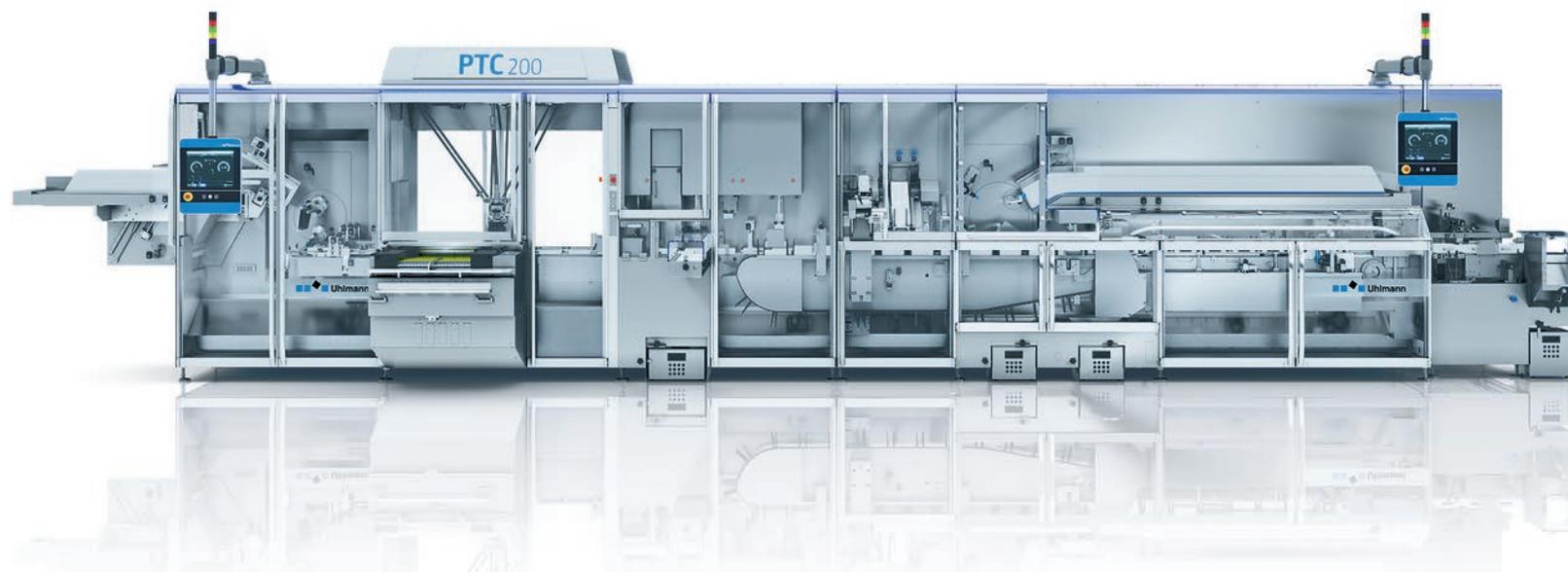
Max. output	400 blister/min. 300 cartons/min.
Max. format area [feed x width]	200 x 284 mm
Max. forming depth	42 mm
Max. carton size [A x B x H]	105 x 105 x 155 mm



Parenteral Tray Center PTC 200

Product diversity, sustainably packaged: The Parenteral Tray Center PTC 200 processes environmentally friendly mono-material and scores with maximum flexibility. The modular concept allows the simultaneous use of different feeders, e.g. for ampoules, cartridges, vials, pens, syringes, needles, alcohol pads or adapters.

Experience
the PTC 200 live



- Modular machine concept for maximum flexibility
- Up to six feeders enable changing product applications
- Versatile combination options of components on one tray
- Processes cardboard, paper fiber and plastic trays
- Ergonomic and space-saving design
- Reduced machine length due to side-loading principle
- Integration of Track & Trace functionalities and Medical Device Tracking
- Intuitive SmartControl operating system

At a glance

Max. output 120 or 200* trays/min.
120 or 200* cartons/min.

Max. tray size [A x B x H] 175 or 80* x 40 x 245 mm

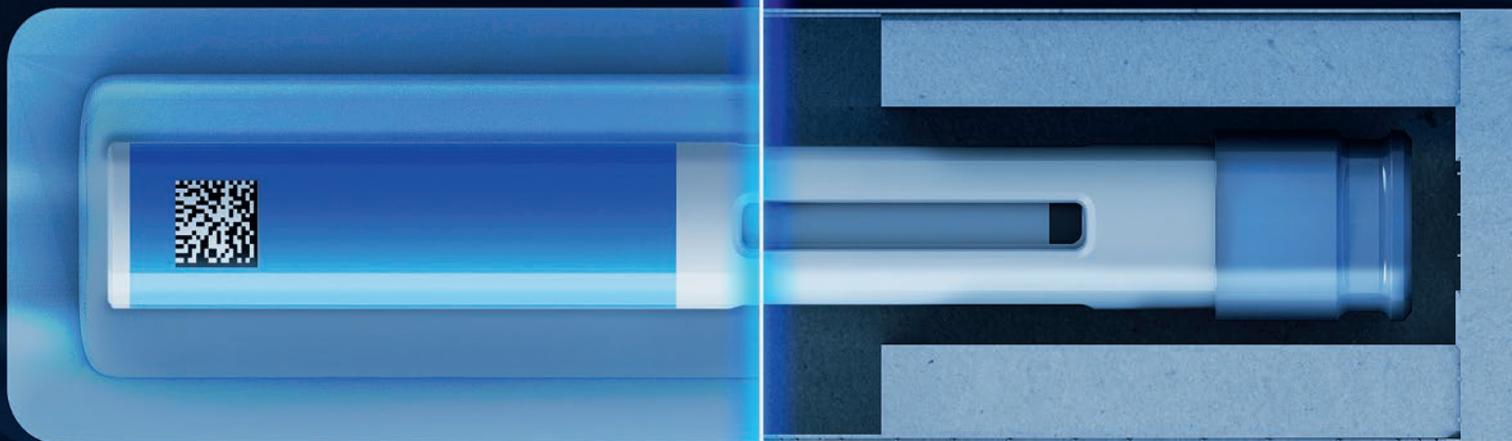
Max. carton size [A x B x H] 180 or 85* x 105 x 250 mm

* optional service extension



Ready for more than one future

Uhlmann parenteral packaging in plastic or paper tray



Benefit from our decades of experience in pharmaceutical packaging. For greater safety, sustainability and flexibility.

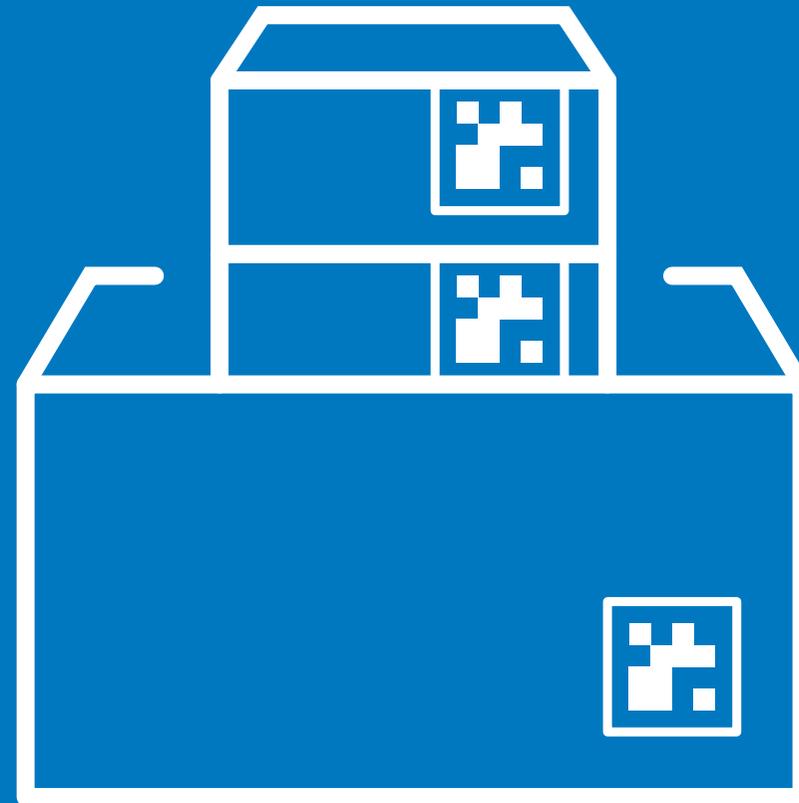
The future of parenteral packaging involves one thing ahead of all others: flexibility. Learn more at www.landingpage.com



Seamlessly integrated end-of-line packaging machines

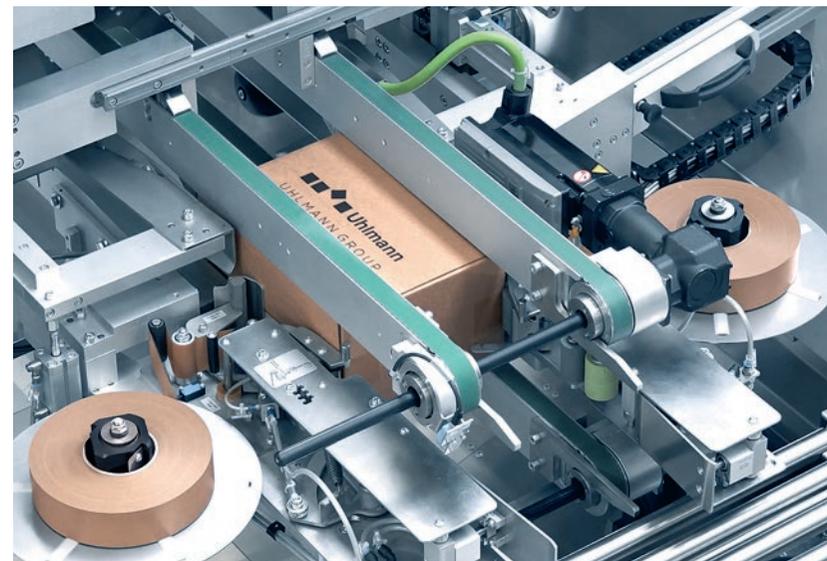
Whether it's a stretch bander, a overwrapper, a case packer or the combination of case packer and palletizing module: the new end-of-line packer generation „Uhlmann powered by pester pac automation“ consistently continues the quality and performance of the blister machine and cartoner. All models are highly automated and fit perfectly into end-to-end productive, networked packaging processes.

Each system combines pharmaceutical reliability, intelligent technology and ergonomics with user-friendly safety and easy handling. Numerous functions enable customized solutions and seamless integration into networked production processes. An Uhlmann Track & Trace system can be integrated into any line to ensure complete traceability of pharmaceutical products.



At a glance – the Uhlmann end-of-line packaging machines

	Max. output	Max. carton size [A x B x H]	Max. infeed	Application
Stretch bander ES 60	60 bundles/min.	340 x 250 x 180 mm	500 cartons/min.	Cartons in bundles
Overwrapper EW 60	60 bundles/min.	250 x 140 x 250 mm	500 cartons/min.	Cartons in bundles
Case packer EC 12	12 shipping cases/min.	600 x 400 x 400 mm	500 cartons/min./ 60 bundles/min.	Cartons directly in case
Case packer with palletizing module ECP 12	12 shipping cases/min. 6 pallet cycles/min.	600 x 400 x 400 mm	500 cartons/min./ 60 bundles/min.	Cartons or bundles in cases, then stack these on pallet



Stretch bander ES 60

High performance for multilayer, perfectly banded or shrink-wrapped packs. With stacker systems for different formations, film crack control for high process reliability and film splicers for automatic reel changes.



- Processing of multi-lane containers
- Film crack control for top and bottom film
- Integrated safety and warning devices
- Easy and tool-free format changeover in under 10 minutes thanks to fewer format parts
- Easily accessible and clearly arranged for high operating comfort
- Integration of marking and control systems provided for the seamless aggregation of the respective packaged goods – with Track & Trace software solution from Pexcite
- Intuitive SmartControl operating system

At a glance

Max. infeed	500 cartons/min.
Max. output	60 bundles/min.
Max. carton size [A x B x H]	150 x 90 x 180 mm
Max. case size [A x B x H]	340 x 250 x 180 mm



Overwrapper EW 60

The best protection against unauthorized, subsequent access to the products: the fully automatic wrapping of packs in heat-sealable film. The best protection against interruptions in production: safety and warning systems such as stock control and congestion monitoring.



Experience
the EW 60 live



- Flexible packaging of various container shapes
- Quick and easy format and roll changes for optimized overall performance
- Few, pluggable format parts
- Easy to clean, clear balcony design
- Integration of marking and control systems provided for seamless aggregation of the respective packaged goods – with Track & Trace software solution from Pexcite
- Intuitive SmartControl operating system

At a glance

Max. infeed	500 cartons/min.
Max. output	60 bundles/min.
Max. carton size [A x B x H]	150 x 80 x 250 mm
Max. case size [A x B x H]	250 x 140 x 250 mm



Case packer EC 12

Matched to the Uhlmann cartoners in terms of format area and output, the EC 12 packs cartons with solid dose blisters, blisters with parenteral dosage forms or sideloading packs ready for dispatch in outer cartons. Space-saving and highly precise, from the unfolding of the cardboard blanks, to the filling and sealing on both sides.



- Automated packaging in the sideloading principle
- Highly flexible thanks to stepless format adjustment to different carton sizes
- Large format range for productive processing of both small and large folding cartons and boxes
- Optionally with hot melt gluing unit, labeling unit and thermal transfer printer
- Integration of marking and control systems provided for seamless aggregation of the respective packaged goods – with Track & Trace software solution from Pexcite
- Intuitive SmartControl operating system

At a glance

Max. infeed	500 cartons/min. 60 bundles/min.
Max. output	12 cartons/min.
Max. carton size [A x B x H]	440 x 150 x 250 mm
Max. case size [A x B x H]	600 x 400 x 400 mm



Case packer with palletizing module ECP 12

Experience
the ECP 12 live



The latest machine technology for end-to-end automated end-of-line packaging with carton handling, labeling, monitoring and palletizing in one system. This is what the innovative, space-saving combination of AN EC 12 case packer and two-station palletizer module ensures.



- Modular design for different set-up and line variants and application-oriented configuration
- Two palletizing stations for pallet change during operation, without line stops
- Handling via robot technology, for low operating costs and maximum flexibility
- Very accessible for service, cleaning and ergonomic material loading
- Integration of marking and control systems provided for seamless aggregation of the respective packaged goods – with Track & Trace software solution from Pexcite
- Intuitive SmartControl operating system

At a glance*

Max. output	6 pallet cycles/min.
Max. outer carton size [A x B x H]	600 x 400 x 400 mm
Max. outer carton weight	22 kg
Max. pallet height	1,300 mm
Max. pallet size	Euro pallet: 1,200 x 800 mm Industrial pallet: 1,200 x 1,000 mm US palette: 48" x 40" (1,220 x 1,016 mm)

* Performance data of the case packer correspond to the performance data of the EC 12 case packer



Innovative solid bottle lines

With the IBC 150 and IBC 240 systems, Uhlmann presents two pharma-grade integrated monoblock packaging lines for placing tablets and capsules in bottles. The networked, flexible system concept integrates all process steps: from feeding the desiccant, to feeding and precisely counting the tablets, to closing the bottles.

Various individual machines for individual lines for the packaging of tablets in bottles can expand or modernize existing lines. An ideal combination, for example, includes the BU 300 bottle erector and the IBC 150.

The compact S 500 Serialization Platform fits perfectly into the into every line – for reliable labeling and serialization of your products.



At a glance – the Uhlmann bottle lines, individual machines and serialization platform for bottles

	Max. counting capacity	Max. output	Bottle volume	Processable bottle shapes
Bottle line IBC 150	24,000 products/min.	150 bottles/min.	30–1,500 ml	Round, angular, oval
Bottle line IBC 240	42,000 products/min.	240 bottles/min.	30–950 ml	Round, angular, oval
Bottle Unscrambler BU 300		300 bottles/min.	30–1,500 ml	Round, angular, oval
Modular Bottle Filler BF 200		200 desiccant in bag or canister/minute 200 cotton balls/minute	30–1,500 ml	Round, angular, oval
Bottle Capper BC 200		200 bottles/min.	30–1,500 ml	Round, angular, oval
Bottle Retorquer BR 200		200 bottles/min.	30–1,500 ml	Round, angular, oval
Serialization Platform for Bottles S 500		150 bottles/min.	30–1,500 ml	Round, angular, oval



Bottle line IBC 150

The IBC 150 is a flexible efficiency guarantor for packaging small to medium solid batches in bottles: highly automated, networked and centrally controllable via touchscreen, the monoblock is on average 20 percent more productive than solutions made up of individual components. And at around five meters, only half as long.

Experience
the IBC 150 live



- Format part-free bottle transport for constant product flow without micro-stops and ramp-up phases
- Basic model with bottle infeed, tablet counting and feeding system, capping unit, and bottle outlet
- Modular expandable with desiccant feeder for canisters or bags, control scales, tablet inspection system, cotton ball feeder and other components
- Ideal for frequent product changes – few format parts and fast format changeover
- Scalable performance, up to four counting modules and three capping heads can be integrated into the line
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

Max. output	150 bottles/min.
Max. counting capacity	24,000 products/min.
Bottle volume	30–1500 ml
Bottle diameter	25–125 mm
Bottle height	42–200 mm



Bottle line IBC 240

Non-stop pharmaceutical grade counting, packaging and sealing: the IBC 240 is a continuous bottle line with all the stations required for the continuous packaging of tablets and capsules in bottles with high output. The line operates constantly and reliably, even at maximum output, thanks to positively driven bottle transport.



Experience
the IBC 240 live



- Safe processing of round, oval or angular bottles made of plastic or glass
- Basic model with bottle infeed, tablet counting and feeding system, capping unit, and bottle outlet
- Complementary modules such as suction system for dusty products, camera inspection, metal detector, tare-gross weighing system, cotton pad feeding, station for induction sealing
- Automated format settings for fast, tool-free format changes without start-up and adjustment process
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

At a glance

Max. output	240 bottles/min.
Max. counting capacity	42,000 products/min.
Bottle volume	30–950 ml
Bottle diameter	35–100 mm
Bottle height	48–193 mm



Individual machines for packaging solid products in bottles

The new, modularly designed individual machines for the line configuration for packaging tablets in bottles allow maximum flexibility. Would you like to supplement or modernize an existing set-up? Or build a new packaging line? The Bottle Unscrambler BU 300, Modular Bottle Filler BF 200 for desiccants or absorbent cotton, Bottle Capper BC 200 and Bottle Retorquer BR 200 are the perfect complement to Cremer's tablet counting machines. The Serialization Platform S 500 for bottles ensures the unambiguous traceability of your products.

- Ideal for fast product changeovers thanks to format part-free machine design
- Safe processing of round, angular and plastic bottles
- Good visibility and quick cleaning thanks to balcony design
- Intuitive SmartControl operating system
- Complete central control and monitoring of the line with the Pexcite software platform



Experience
the BU 300 live



The Bottle Unscrambler BU 300 upright bottles, cleans them with ionized air and ensures seamless transfer to the filling and packaging process.

At a glance	Bottle Unscrambler BU 300	Modular Bottle Filler BF 200	Bottle Capper BC 200	Bottle Retorquer BR 200
Max. output	300 bottles/min.	200 desiccant in bag or canister/min. 200 cotton balls/min.	200 bottles/min.	200 bottles/min.
Bottle diameter	Ø 25–125 mm (30–84 mm for angular bottles)			
Bottle height	30–200 mm (45–200 mm for angular bottles)			
Bottle volume	30–1500 ml			



Serialization Platform S 500 for bottles

Perfectly matched to the Bottle line IBC 150 in terms of performance, the compact Serialization Platform S 500 is the ideal system for process-reliable serialization. Flexible throughout, it can be quickly adapted to changing requirements.

- 360° code detection on the bottle jacket
- Labeling of bottles where space is limited
- Bottle Bottom Coding (BBC)
- Simple format setting, without format parts
- Pharmaceutical safety through “label sort-out” function
- Good accessibility, easy maintenance and cleaning
- Software solutions with interfaces to internal and external systems as well as government databases
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system

Manage and analyze serialization and aggregation data conveniently and with Pexcite Track & Trace. **More about Pexcite starting on page 64.**

Experience the S 500 for bottles live



At a glance

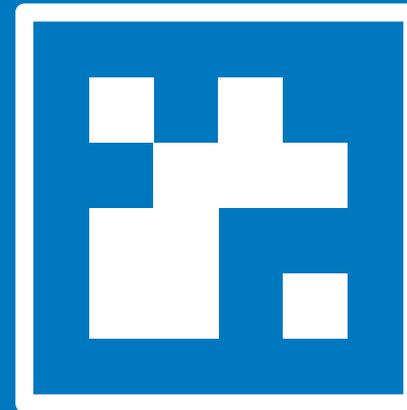
Max. output	150 bottles/min.
Bottle size [D x H]	min. 25 x 45 mm max. 125 x 200 mm
Max. bottle weight	750 g
Bottle material	Glass, HDPE white



Serialize, tag, aggregate

Uhlmann Track & Trace provides for transparent supply chains and enables complete traceability of each individual product. From manufacturing to patients.

Our modular units for serialization, labeling and aggregation stand for maximum flexibility and future-proofing. They grow with their tasks and can be expanded to include components such as tamper-evident labeling, top labeling and top printing.



At a glance – the Uhlmann machines for serialization and marking

S 500 for cartons



Compact base unit with **VisioRead inkjet printer and inspection system**

With function extension **Tamper Evident Labeling and Top Labeling**

With function extension **Tamper Evident Labeling**

With function extension **Top Labeling**



S 500 for bottles



Compact base unit for **360° bottle inspection**

Compact unit **for labeling bottles with serialization**



S 500 Serialization Platform for cartons

The compact system is ideal for getting started with process-safe serialization. It labels 300 or 500 cartons per minute and can be flexibly adapted to changing requirements. The S 500 is also available for serializing bottles (see page 59).

- Particularly compact and flexible
- Modular system for individual configuration, expansion possible at any time
- Good accessibility, easy maintenance and cleaning
- Software solutions with interfaces to internal and external systems as well as government databases
- Integration of Track & Trace functionalities
- Intuitive SmartControl operating system



Experience the S 500 for cartons live



At a glance	
Max. output	300/500* products/min.
Max. belt speed	60 m/min.**
Carton size [A x B x H]	min. 30 x 15 x 85 mm max. 180 x 105 x 250 mm
Length base module	approx. 600 mm

* optional performance extension

** depending on packaging quality and folding box geometry



Aggregation and Rework

Implemented with a fully automated solution integrated into the end-of-line packaging machines or manually with the Uhlmann Aggregation Platform in various expansion stages. The Uhlmann Aggregation Platform can be used as a stand-alone system or to extend existing packaging lines. Pexcite Track & Trace also offers user-guided decommissioning, while the Aggregation Platform A1 also offers user-guided solutions for decommissioning and reworking.



The **Uhlmann T1 Control Terminal** can serve as the hardware basis for all Pexcite applications. In the Track & Trace application equipped with a hand scanner, packages can be aggregated manually or reworked.



Manage and analyze serialization and aggregation data conveniently and with Pexcite Track & Trace. **More about Pexcite starting on page 64.**



Enabling Smart Decisions

Pexcite is our software platform for your individual production needs when it comes to the packaging of pharmaceuticals.

Its diverse functions allow you to network Uhlmann machines and equipment. The connectivity of standardized solutions, the Uhlmann portfolio and the required interfaces make Pexcite the unique platform in the pharmaceutical and biotech industry for ensuring fast, error-free and safe processes in your production set-up.

All solutions are scalable in various functional scopes – depending on your individual requirements.



Multiple functions on a single platform

Data-based

Intelligent networking of machines, devices and data for data-based decisions and safe pharmaceutical production

Safe

Data communication for data integrity and security compliance with modern technologies e.g. OAuth2

Web-based

Secure access is possible from anywhere and on any device

Intuitive

Clear user interface and intuitive system navigation

Future-oriented

A technological basis for all software solutions – scalable at any time on the path toward Pharma 4.0

Customizable

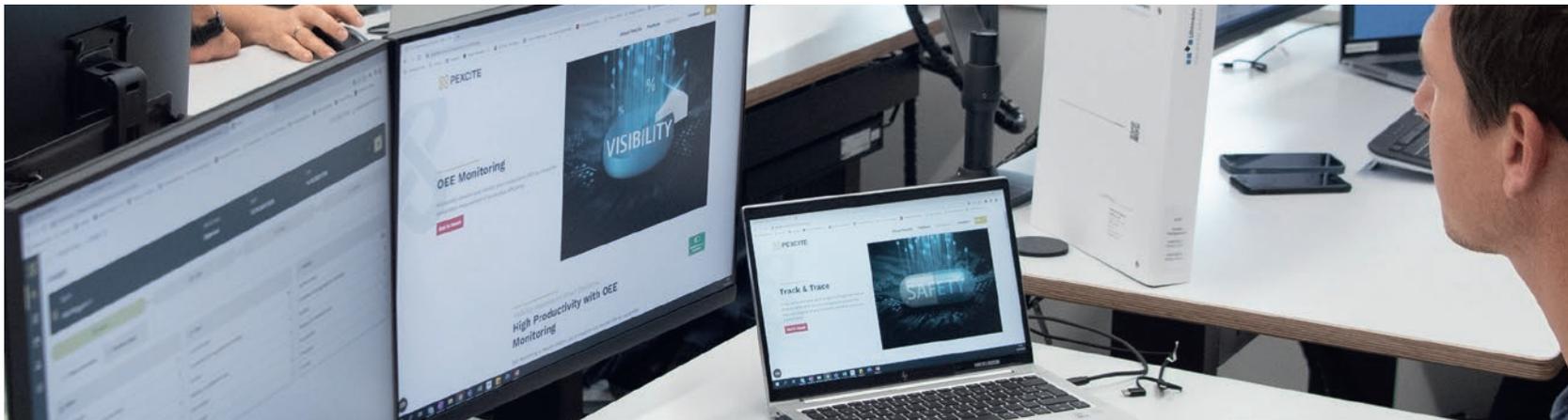
Customization options – parameters relevant for the user can be displayed individually on the dashboard

Scalable

The platform is successively supplemented by further solutions

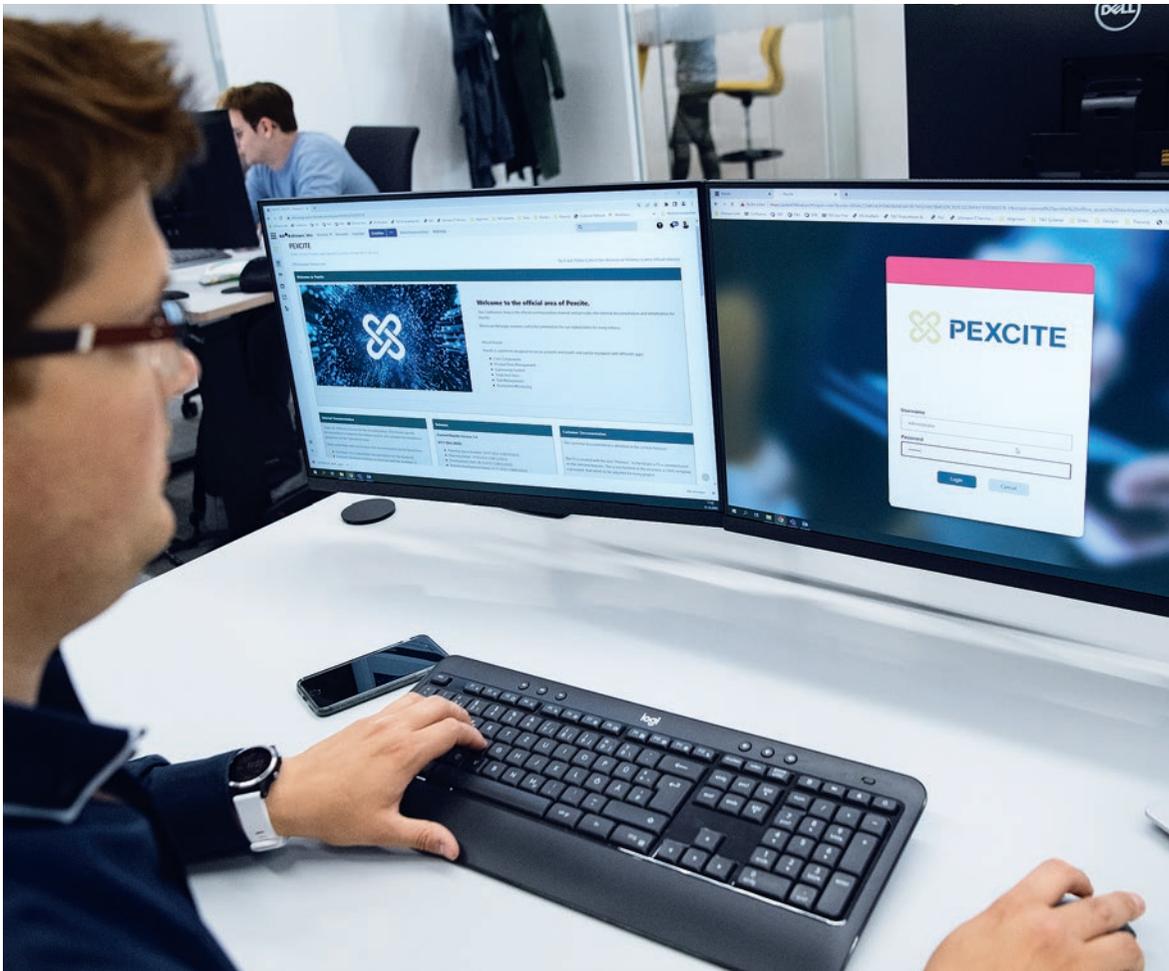
User-oriented

Current design and usability standards and competent support



The Pexcite platform

Pexcite integrates all the applications you need for safe, efficient and predictive control of your processes. As an open platform, Pexcite can be quickly extended with additional solutions without having to revalidate the entire system.



Using the browser-based interface, you can access Pexcite at any time and from any location and always have a detailed view of your processes and production.

- Specific platform for the requirements of the pharmaceutical industry
- Modular solution
- Centralized data management for added efficiency
- Completely browser-based and thus independent of the end device
- Future-proof and modern platform through proven technology standards



reddot winner 2022



Pexcite received the Red Dot Award 2022 and the iF DESIGN AWARD 2023 for its outstanding user experience.



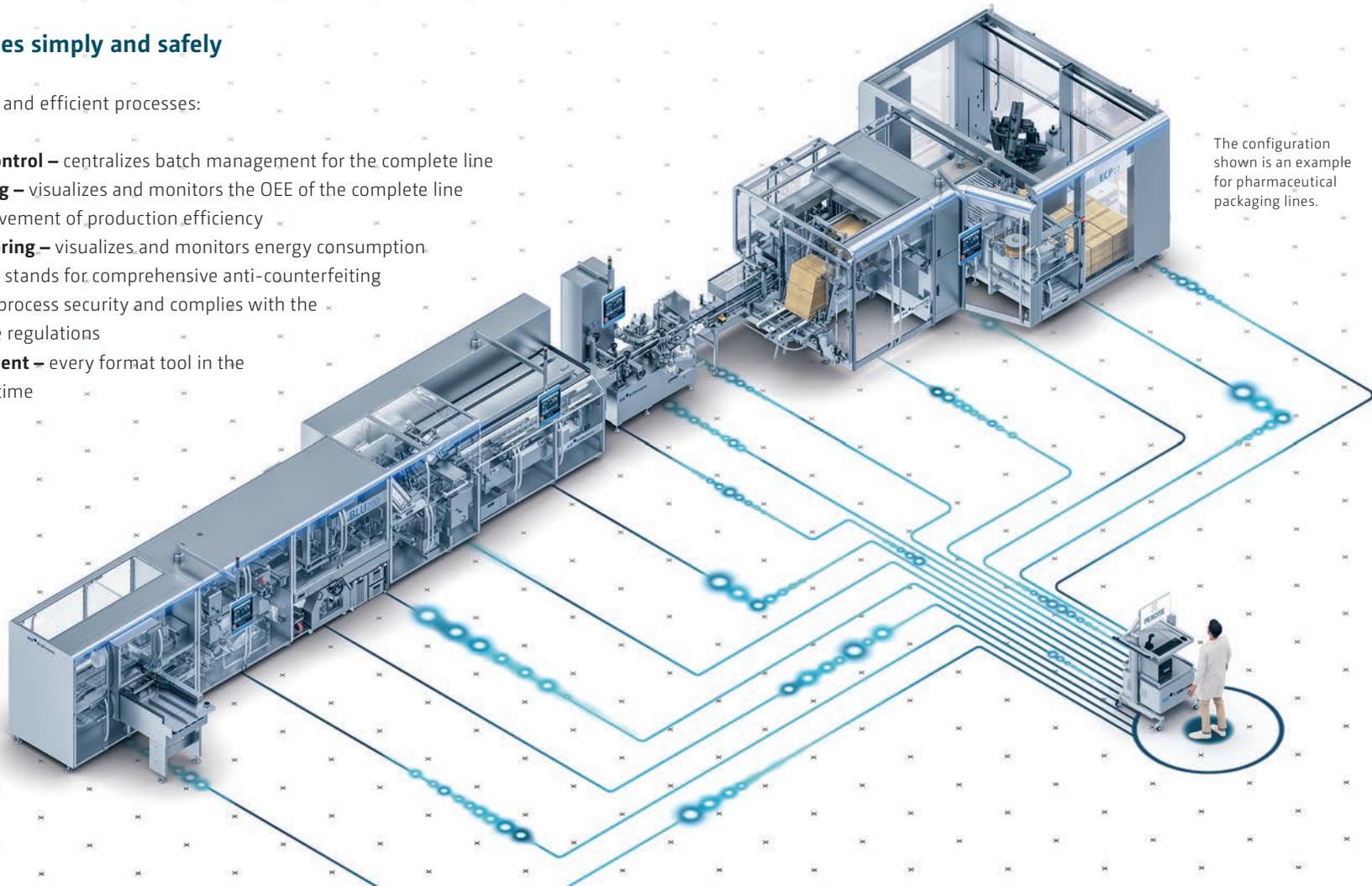
Extra efficiency

Pexcite networks the entire line and provides all relevant data for the efficient control and safeguarding of your processes at the push of a button. Thanks to a holistic and comprehensive line concept, the control is centralized and automated. All administrative tasks are controlled, data is reported back and is available collected form in central reports as a printout or as a data record for further use. This minimizes the amount of work and sources of errors.

Control complex lines simply and safely

Pexcite solutions for safe and efficient processes:

- **Pexcite Supervisory Control** – centralizes batch management for the complete line
- **Pexcite OEE Monitoring** – visualizes and monitors the OEE of the complete line for a sustainable improvement of production efficiency
- **Pexcite Energy Monitoring** – visualizes and monitors energy consumption.
- **Pexcite Track & Trace** – stands for comprehensive anti-counterfeiting as well as product and process security and complies with the applicable Track & Trace regulations
- **Pexcite Tool Management** – every format tool in the right place at the right time



The configuration shown is an example for pharmaceutical packaging lines.



Pexcite Supervisory Control

Centrally plan, prioritize and start batch processes: this is the task of Pexcite Supervisory Control. Holistic control reduces process complexity and increases productivity.

Full control

- Central control and order management
- Increased efficiency
- Simple system integration
- Minimization of errors
- Holistic planning and implementation

Centralized batch and product management across the entire production line

The screenshot displays the 'Batch Start Center' interface. At the top, there is a navigation bar with 'Supervisory Control' and 'Batch Start Center'. Below this, a green bar indicates 'Batch Start Center' with a 'Load' button. A 'Error Batch Data' section contains 'Reset' and 'Go to Batch' buttons. The main area is titled 'Process order Data' and contains several input fields:

Lot Number (optional) 01000000000000000000	Lot Count (optional) 1	Quantity (optional) 1.000
Order Number (optional)	Manufacturing Date (optional) 18.09.2023	Expiry Date (optional) 18.09.2023
Product Reference (optional) 01000000000000000000	Product Description (optional) Karamerika, Springs	Operation Mode (optional)
Free Text 1 (optional)	Free Text 2 (optional)	Free Text 3 (optional)



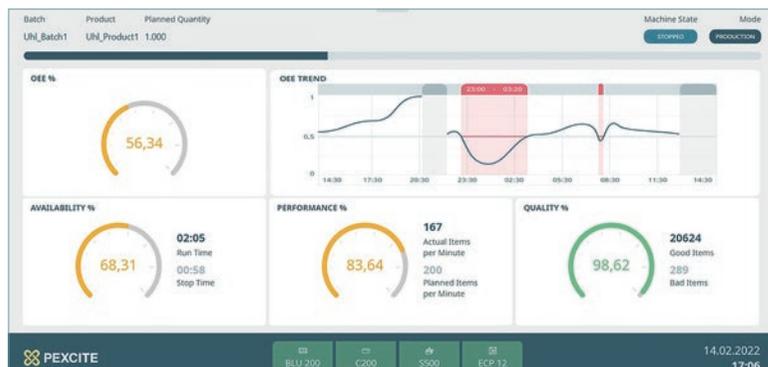
Pexcite OEE Monitoring

Pexcite OEE Monitoring visualizes and monitors the overall equipment effectiveness of your packaging lines, providing the basis for sustainable process improvements. The clear OEE Live Dashboard provides all relevant data on availability, performance and quality in real time. The OEE Detail View function also offers the possibility of analyzing batch data and using the results to further develop production.

Increasingly efficient

- Visualization of the OEE
- Data-based decisions
- Future oriented system
- Smart connectivity

All relevant KPIs of the machines and overall lines at a glance



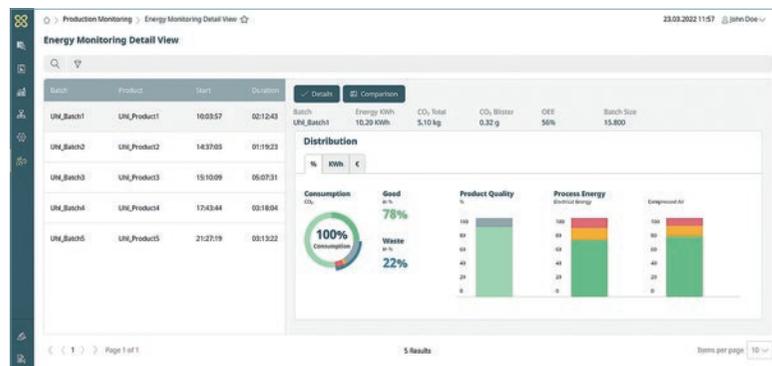
Pexcite Energy Monitoring

Pexcite Energy Monitoring provides consumption data for electrical energy and compressed air in a transparent and clear manner. If customer-specific energy indicators are stored, the data can be compared and converted into CO₂ emissions at the push of a button.

Power and compressed air consumption always in view

- Visualization of power and compressed air consumption from the machine to the complete line
- Various customer-specific counting units (e.g. CO₂, kWh, per hour, per blister, in Euro)
- Transparency thanks to meaningful diagrams and easy-to-understand, configurable dashboard
- Various interfaces for data acquisition to integrate external machines into reporting
- Various interfaces for passing on the collected data to other software applications

Consumption data per batch of a line recorded simply and clearly. Here: good and bad quantities per machine, consumption of energy. Compressed air and consumables in Euro and CO₂.



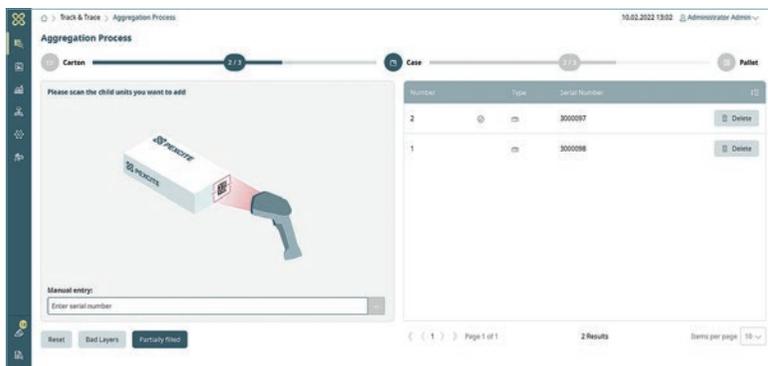
Pexcite Track & Trace

With Pexcite Track & Trace, pharmaceutical and medical products can be tracked seamlessly and securely. The software complies with all globally applicable regulations for the unique marking and identification of products along the supply chain. From production to pallet - for maximum patient safety. By tracking all relevant process steps, Pexcite Track & Trace also provides starting points for process optimization.

Complex traceability

- Maximum pharmaceutical safety
- A modular system
- Regulations and compliance
- Validated for the pharmaceutical industry

Aggregate products manually in the Track & Trace system. From folding boxes to bundles or shipping cartons to pallets.



Pexcite Tool Management

With Pexcite Tool Management, delays caused by the late delivery of format parts are a thing of the past. Digital tool management keeps an eye on upcoming format changes, ensures short set-up processes and reduces format complexity. The Pexcite Batch Control Center planning board combines batch and set-up orders. This increases overall plant effectiveness and ensures high, pharma-compliant quality that can be verified for analyses and audits.

Format parts in the right place at the right time

- Holistic set-up process
- Reduction of format complexity
- Pharma-compliant quality assurance
- Digital process documentation
- Simple user guidance
- Scalable data thanks to connectivity

The Batch Tool Report shows quality-relevant application and usage data with an overview of the individual tool.

Batch Tool Report					PEXCITE	
Batch number	Line name	Product code	Batch start	Batch end		
3001-1		0002_Yellow_Pills	03.08.2022 19:24	03.08.2022 23:37		
Batch Overview: Tool Status and Mounting						
B1449_Showcase1						
Used Tool	Tool Status by Mounting	Active Tool Statuses	Last Change			
Fillingtube - UDE1450099-12D_FLLT19	Already mounted	Wash Calibration	10.03.2022 09 10.03.2022 09			
		Polished	10.03.2022 08			
Lower Sealing Tool - UDE1450099-12C_LOBTL	Already mounted	Wash Calibration	08.03.2022 14 08.03.2022 14			
		Polished	08.03.2022 14			
Punching Tool - UDE1450099-1D_PUNCH	Already mounted	Wash Calibration	08.03.2022 15 08.03.2022 15:52	1450099_3.1	03.08.2022 08:22	administrator
		Polished	08.03.2022 15:52			

Batch Tool Report	
Batch number	3001-1
Line name	
User name	administrator
Created on	03.08.2022 18:23 Europe/Berlin
Filters	Line: All, Batch number: 3001-1
Report version	1.0

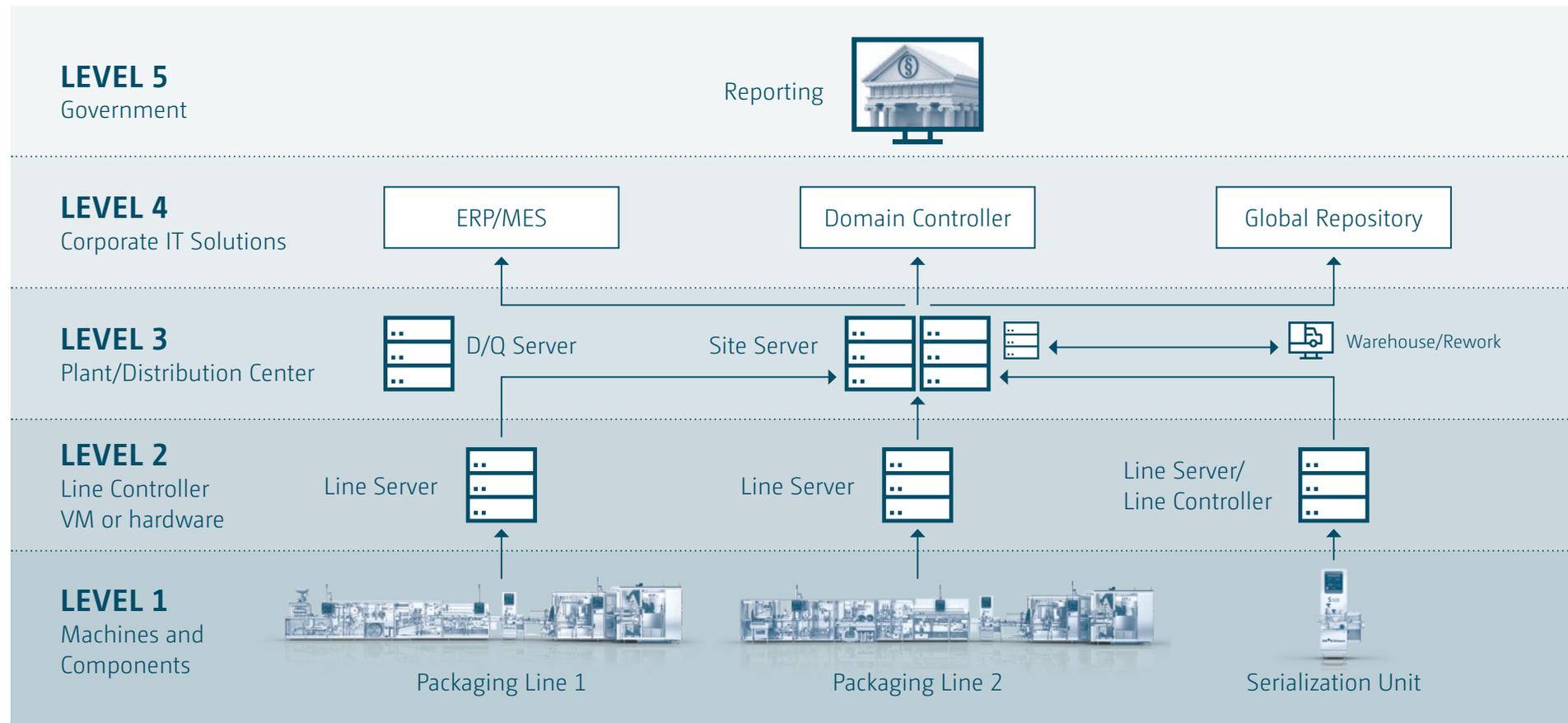


The Pexcite architecture

Pexcite networks machines and equipment. The platform forms the control and steering functions of your individual processes in the packaging of pharmaceuticals and provides sound data for continuous optimization of your processes and compliance with legal regulations and information requirements.

We connect. You control.

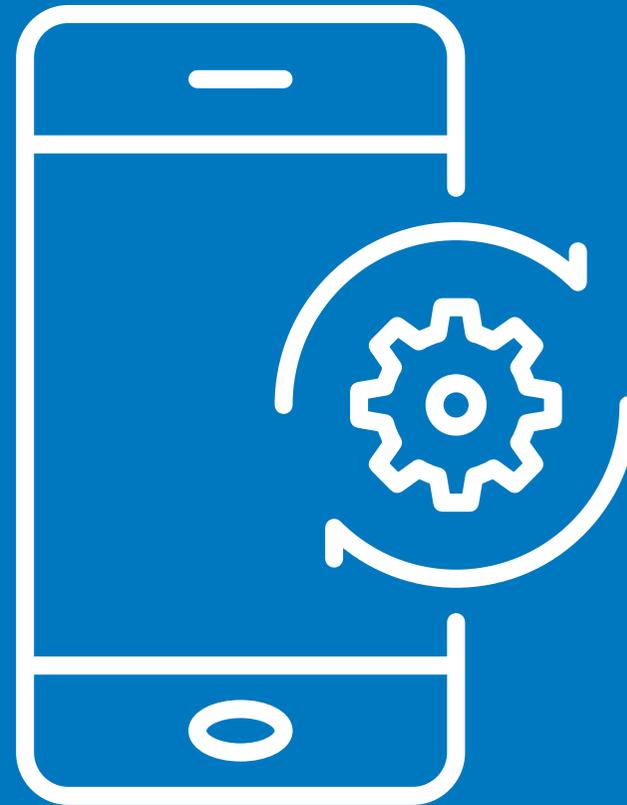
System architecture of the software for capturing, aggregating, managing and transmitting serialization data



Uhlmann Services – customized and from a single source

We not only develop reliable, high-performance equipment and packaging lines. We also ensure that you can operate your production efficiently at all times and support you with customized services. On demand, project-related or permanent.

More than 400 service experts at 17 locations worldwide are there for you!



We are here, when you need us

Do you need to replace a spare part, update the control software or bridge a personnel bottleneck? Do new employees need to be trained or existing equipment moved? We support you competently, flexibly and in a solution-oriented manner.

Benefit from Uhlmann ServicePlus

- Modular ServicePlus service packages
- Telephone hotline
- Remote and on-site service
- Spare parts procurement and management
- E-commerce
- Validation and production support
- Relocation service



Service and maintenance

Individual systems require customized maintenance. With our maintenance services, your machines will operate in the long term without downtime. Weak points are detected in advance and the quality remains at a consistently high level. This is ensured, among other things, by traditional maintenance, calibration services and FMECA.

In the best hands

- Tiered MaintenancePlus service packages
- Inspection, maintenance and repairs
- Preventive Impact Analysis (FMECA)
- Calibration services

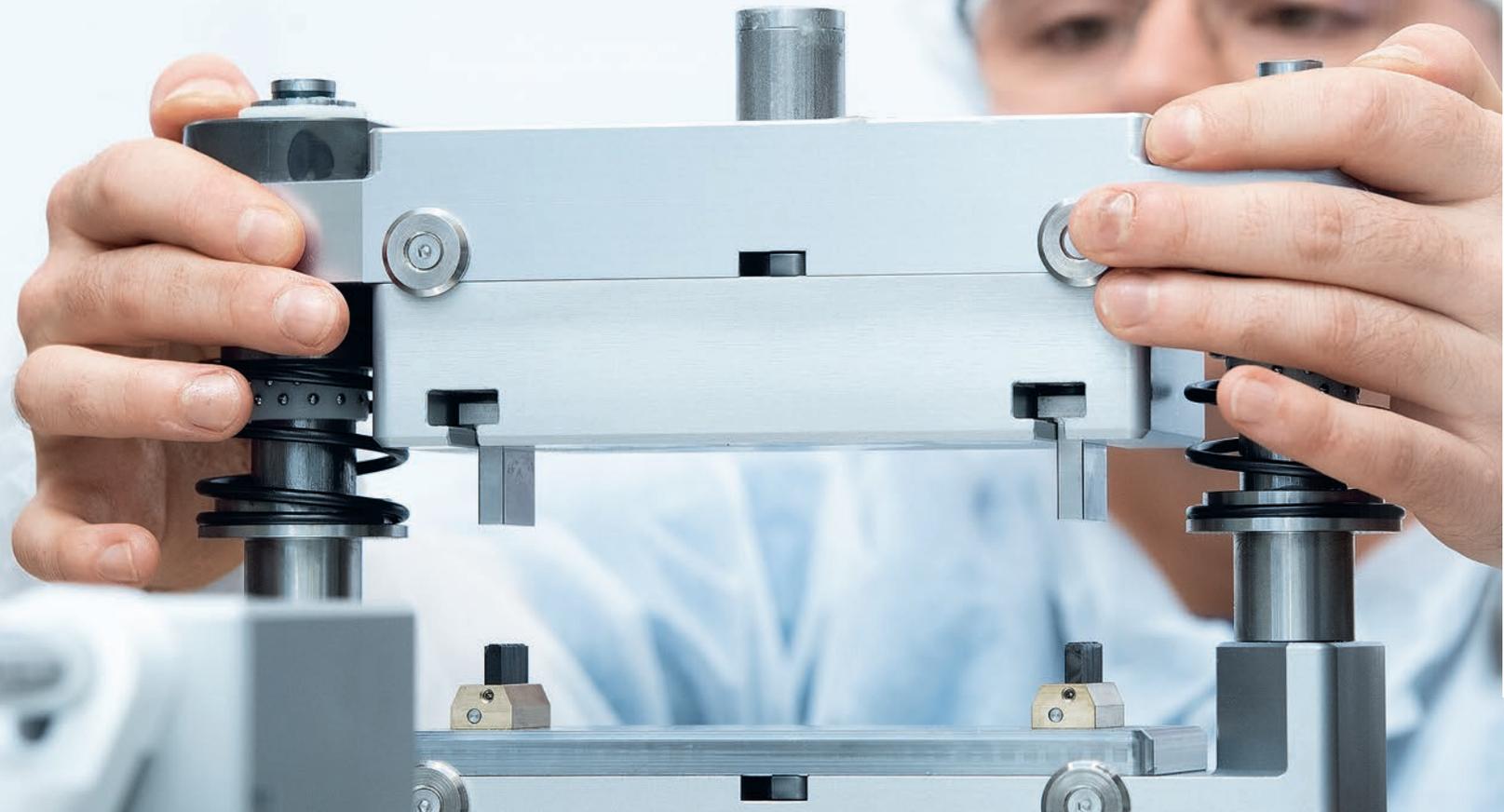


Productivity, quality and sustainability

Is the machine performing as expected? Does it meet current technical standards and Regulations? Are the processes still running optimally? Is the right packaging material being used? Does everything work the way you want it to? Productivity has many facets – we take care of the perfect interaction. For greater productivity, reliable quality and as a contribution to more sustainability in production. Because the longer an existing system can be used, the better for the environment.

Always up to date

- Individual ProductivityPlus service packages
- Mechanical upgrades
- Electronic upgrades



Training and qualifications

Do you want to increase the motivation and machine competence of your team or train new employees efficiently? We offer training and qualification for every field of work. Whether as open training sessions or as part of a comprehensive training program. Whether on your premises, in our training center or remotely – we will meet your individual needs.

Tailor-made know-how

- Intensive TrainingPlus advanced training program
- Operation and format change training
- Maintenance training
- Electrical/electronic training
- Administration training



Tools and format parts

Long life cycles, constant productivity, and high overall efficiency: this is made possible by the precisely fitting Uhlmann original format parts and our services covering all aspects of formats, set-up processes and tool logistics.

An original is always the best replacement

- Support from consulting to commissioning
- Design individually tailored to your operation
- Quality control by experienced packaging specialists
- Format test under real production conditions.
Uhlmann has more than 20 machines of different series and generations available for this purpose.

Ensuring the right tool for the job is
in the right place at the right time:
Tool Management with Pexcite.
More about Pexcite starting on page 64.

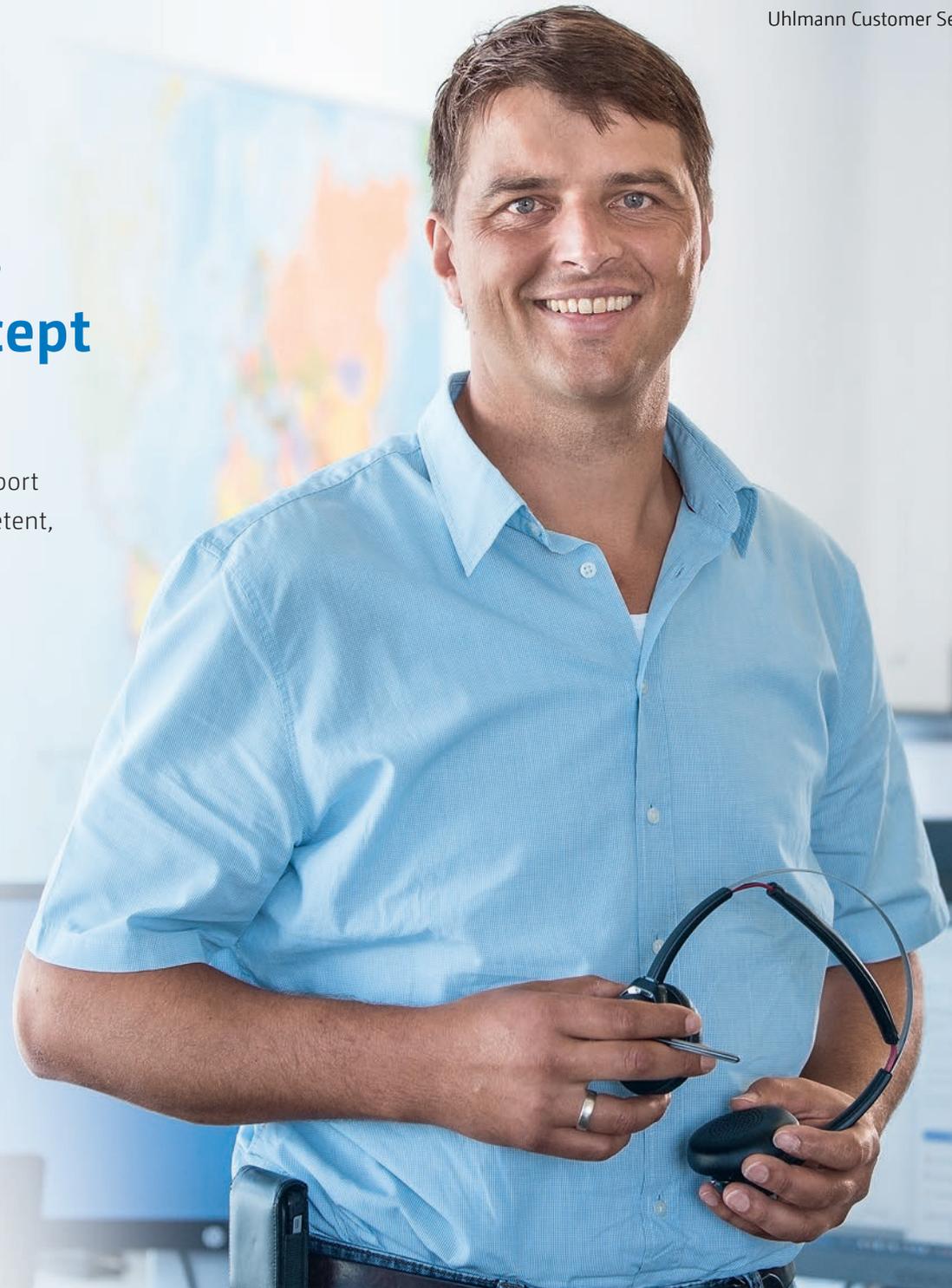


More service. More value. The Uhlmann service concept

With consistently customer-oriented service packages, we support you in all matters relating to pharmaceutical packaging. Competent, flexible and perfectly tailored to your needs.

**More than 400 Uhlmann service experts at
17 locations are there for you worldwide!**

**For all cases: the Uhlmann 24/7 service hotline
+49 7392 702-8702**



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