

Blister Express Center 500
Now with double-lane operation





5000

bec

blister express center

The growth prospects in the pharmaceutical industry are excellent. Yet how is it possible to translate positive forecasts into business reality? How are the strictest quality and process-reliability demands to be reconciled with product diversity and decreasing batch sizes? And that with existing staff levels and lowest possible investments? Quite easily in fact: by taking the entire packaging process into account and by rethinking the all-important issue of flexibility. The outcome is a significantly simplified format changeover, an equally reliable and straightforward operating system, and a modular concept that offers a multitude of options. These benefits add up to a new standard for the processing of all common forms of solid dose products and types of forming materials in the medium output range.

Smart technology for maximum flexibility and efficiency.

Blister Express Center 500.

Innovative from start to finish

**Integrated, flexible, efficient and easy to use:
the double-lane Blister Express Center 500 guarantees top
pharmaceutically compliant blister quality, outstanding
process reliability, and highest productivity.**



Maximum flexibility and maximum efficiency in familiar Uhlmann quality: these are the obvious benefits of the double-lane, end-to-end system combining a blister and a cartoner module integrated to form a line approx. 10 meters in length. The Blister Express Center 500 is exceptionally easy to operate, allows fast format changeovers, and processes up to 500 blisters and 300 cartons per minute. The initial outlay and running costs are low for maximum process reliability. In short, it is the ideal line for the economically efficient packaging of medium-sized batches of standard solid dose products using conventional forming materials.

The benefits at a glance:

- **Optimum price-performance ratio**
- **Tool-free format changeover in just 30 minutes**
- **Guided format changeover with the SmartControl operating system**
- **Lightweight and foolproof format parts based on poka yoke principles**
- **Optional platen or rotary sealing**
- **Double-lane operation**
- **Perfect accessibility and easy cleaning**
- **Optional modular extension**
- **Time-tested, well-engineered technology – coupled with new functions**





The highlights

1

Integrated

The Blister Express Center 500 is an integrated packaging system that combines a blister and a cartoner module in a line approx. 10 meters in length. The double-lane operation guarantees a high level of process reliability and, at the same time, minimizes operating costs. Furthermore, the time-tested, direct blister transfer ensures smooth, end-to-end product handling.

The integrated batch management system means that format data specific to a product only has to be entered once. It is then available at all control units of the line.

Inspection and marking systems as well as Track & Trace by Uhlmann for 100-percent inline monitoring and comprehensive pharmaceutical reliability are easily integrated into the line from the start or at a later date.

2

Flexible

As the Blister Express Center 500 is available with rotary or platen sealing, all packaging requirements are easily met. Even complex product shapes, rigid aluminum pockets or calendar packs can be processed efficiently.

The closing station in the cartoner module is suitable for all standard carton-closing systems. These include tuck-in and hot-melt closure as well as the option of a fourth flap.

The modular design of the packaging line allows customized configuration. Options include the integration of an additional feeder for inserts, a checkweigher, or an end-of-line packaging machine. These are incorporated into the line architecture and controlled via the central operating system.



3 Efficient

The integrated line architecture guarantees the perfect coordination of all components. This results in a maximum output of 500 blisters and 300 cartons per minute, or even 500 cartons with a more powerful cartoner module.

Irrespective of the number of cycles, the process times for forming and sealing remain constant. Uniform, high-quality blisters are the result.

The blisters are transferred directly to the cartoner module so the downstream packaging is completed without any interruption to the production process.

Simplification of the format changeover means that the entire line can be reset by one person in just 30 minutes. The new SmartControl operating system guides the operator through the steps one at a time.

4 Easy to use

The SmartControl operating system is intuitive, standardized and process-oriented. The entire line can be operated from any desired position at the line itself or from elsewhere using remote control.

The few parts needed for a format changeover are designed according to poka yoke principles – they are lightweight, compact and foolproof.

Smooth surfaces without corners and edges mean that the stations can be cleaned quickly and easily. The clear, cantilever design and the enclosed machine mechanics simplify cleaning.

The open design of the line means that all areas are clearly visible and easy to supervise. Unhindered access to the separate stations from the operating side permits material charging, cleaning and servicing.

Flexible: the format changeover

Express change: guided format changeover in just a few steps. An obvious benefit for the economically efficient packaging of different products on one line.



Format changeover in 17 steps

- 1** *Setting of forming material width*
- 2** *Setting of web edge position*
- 3** *Change format tool*
- 4** *Width gripper index after forming*
- 5** *Setting of width reversing segments*
- 6** *Change format parts of the feeder*
- 7** *Change guide plates*
- 8** *Setting of lid material width*
- 9** *Change format parts sealing station*
- 10** *Width gripper index after sealing*
- 11** *Perforating, embossing, punching tools*
- 12** *Change format parts blister transfer*
- 13** *Setting of leaflet folder*
- 14** *Change format parts carton feeder*
- 15** *Setting of carton closing station*
- 16** *Change format parts product loader*
- 17** *Load format data*

Flexibility is the main criterion when it comes to the packaging of diverse products, and the key to this is a fast and easy format changeover. Uhlmann has gone a step further with its Blister Express Center 500 and simplified the format changeover to such an extent that it takes one person 30 minutes at the most to reset the entire line.

Practically all parameters can be stored and accessed at the touch of a button. The line adjusts automatically. In most cases, specific format parts are not required. However, should the process reliability require certain format parts, these are foolproof as they are designed according to poka yoke principles.

A faster and easier format changeover compared to competitive lines is also the outcome of another innovation: the SmartControl operating system. The benefits of this include step-by-step guidance through a format changeover. The program guides the operator through each step of the process so even new members of staff can be sure of intuitively correct handling from the start.



Express change

Listed beneath this caption throughout the brochure are points that contribute to the noticeably simplified format changeover on the Blister Express Center 500.



Left: Format parts of the blister module for rotary sealing Right: Format parts of the cartoner module

Efficient: the blister module

The forming material reel support, the feeder, rotary or platen sealing and the punching station form a perfected system for consistently high productivity.

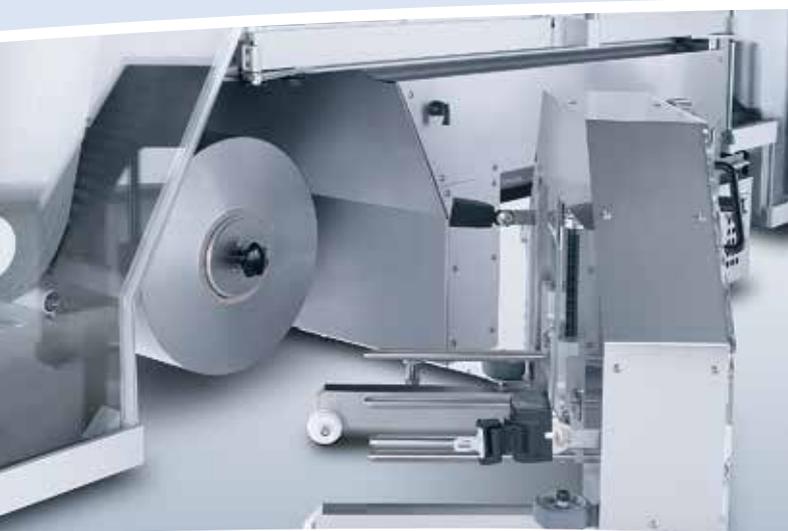
Allow fast and accurate reel replacement: the forming material reel support and unwind function

The forming material reel support and unwind function are designed to ensure fast and GMP-compliant reel replacement. Reels up to 600 mm in diameter, or up to 800 mm with a double support, can be processed. These suffice for up to 75,000 or 130,000 blisters respectively. The forming material unwind is driven by a motor and can be optionally fitted with an automatic lateral web control function. A parameterized com-

pensation loop guarantees the correct pull appropriate to the web width. An optional cutting and clamping table with clamping arms and a splice reel support additionally eases accurate splicing. A likewise optional forming material buffer allows an uninterrupted production flow.

Express change

- *Optional forming material trolley for the cGMP-compliant transportation of forming materials and fast, easy reel replacement*
-



Practical trolley for the transportation and lifting of forming material reels



Compact design: embossing and perforating station

***Increases the temperature gradually:
the heating station***

The format-free heating station of the Blister Express Center 500 gently heats the forming material in three stages; each heating plate has three heating zones and the temperature can be controlled individually. The heating plates react immediately to a machine stop and swing open to prevent web damage. The heating plates are positioned automatically when the machine starts and the tendency regulation of the warm-up period incorporates a self-learning function. The heating station is fitted with the necessary connections for a suction system for the processing of PVDC forming materials.

***Reproduces identical blister quality:
the forming station***

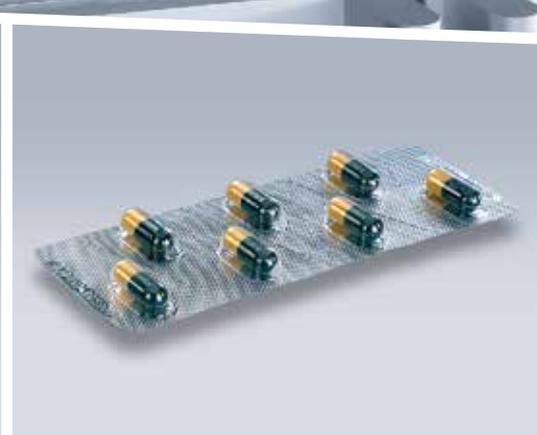
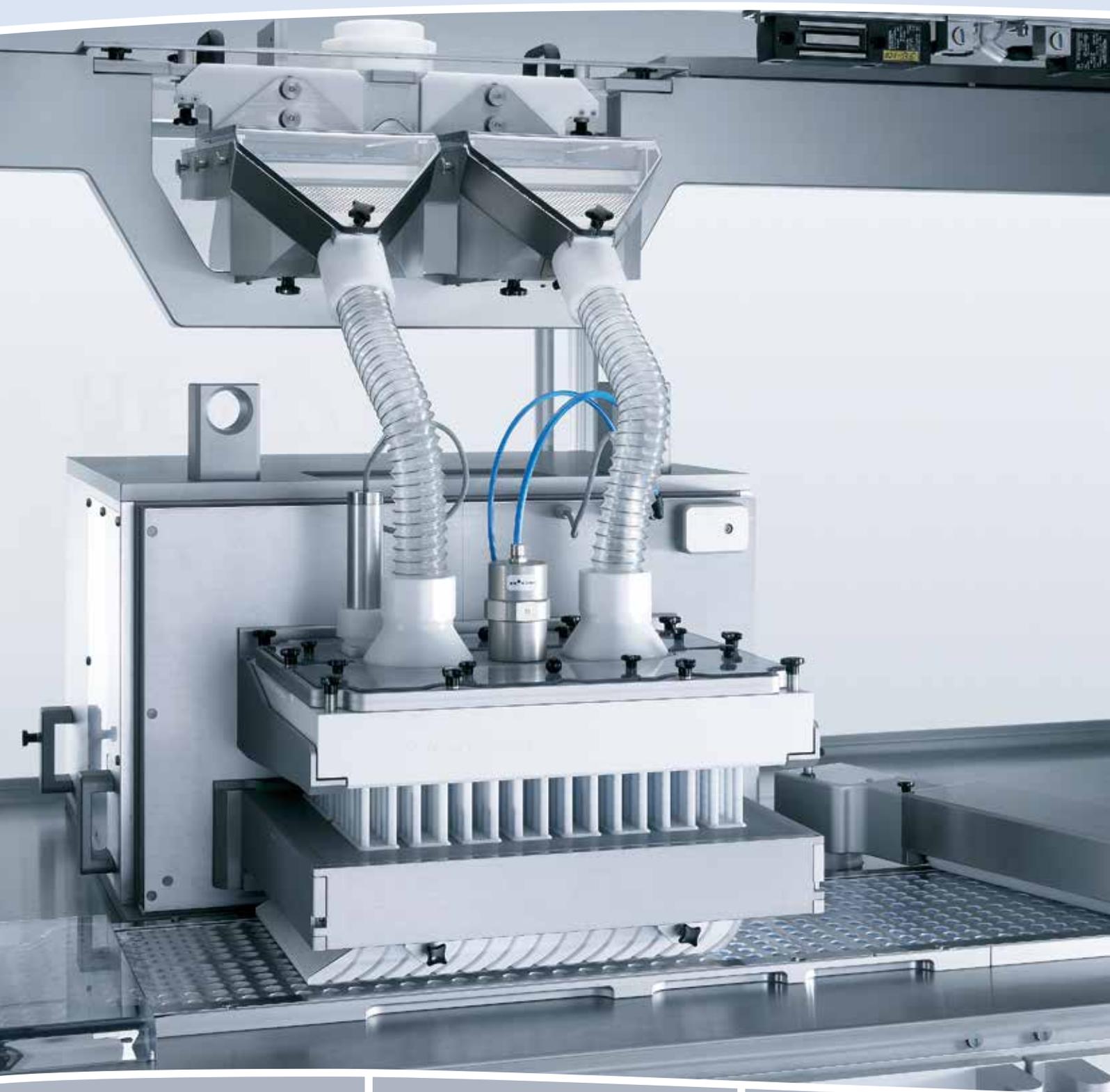
Very effective and innovative are the servo-regulated drives in the Blister Express Center 500. The drive of each station is controlled separately. Consequently, it is possible to maintain a constant processing time during forming and sealing. This ensures consistently high blister quality irrespective of the number of cycles. The validated and thus optimized closing period is consistently maintained irrespective of a high or low number of cycles. In addition, the forming station has a central tool clamping system for optimum blister geometries. Direct cooling of the forming film functions efficiently via the two-part forming tool with integrated quick-release couplings for the cooling water.

Express change

- *Free access to the station from the operating side*
 - *Lightweight, easy-to-change format parts*
 - *Changeover from PVC to aluminum forming material at the touch of a button*
-



Cantilever design allows easy access to the heating and forming stations



Efficient and accurate feeding of symmetrical and asymmetrical product shapes: the SimTap feeder is ideal for both versions of the Blister Express Center 500 – with platen or rotary sealing.

Reliably handles diverse products: the SimTap feeder

The Blister Express Center 500 can be fitted with a SimTap 3s feeder, for example. It is equally precise in the handling of hard and soft gelatine capsules, tablets of simple geometry or solid dose products of exceptional shape including rhombus, octagonal or heart-shaped forms. SimTap stands for “simultaneous tablet placement” because the feeder works on the principle of simultaneous, dedicated placement of the products into the formed pockets. The SimTap feeder is suitable for thermoforming and aluminum forming materials and is equally capable of continuous or intermittent motion operation. Depending on the requirements, the Blister Express Center 500 can also be fitted with other feeding systems such a flood feeder or a vibratory feeder with a fixed chute or filling roller for tablets and capsules of simple shape.

Express change

- *Fully integrated and servo-regulated; automatic format setting at the touch of a button*

Checks thoroughly: the product inspection system

The integrated, color camera product inspection system checks whether all the blister pockets are filled and that the products are correctly positioned, verifies the shape and color, and identifies damaged tablets or capsules. Incorrectly filled blisters are automatically registered and removed from the process. The smooth surfaces of the product inspection system allow easy cleaning; the sensor-controlled cover can be lifted to thread through the web.

Express change

- *Automatic loading of the format data*

Flexible and cost-saving: marking and printing systems

The use of intelligent systems for the printing and unique identification of labels, leaflets as well as cardboard cases additionally adds to the flexibility of the production process:

- Optional combination of graphics, texts and variable data in a single layout
- Easy alteration of the print data during the ongoing process
- Fast loading of new layouts; data is stored in the system
- Conversion of existing layouts for immediate access in the system



Product inspection using the camera system VisioChrom.



Ergonomically accessible lid material reel support



Platen sealing with easy-to-change sealing plates

Options depend on the application: the lid material reel support and unwind function

The lid material reel support is ergonomically accessible and accepts reels up to 300 mm in diameter. A motor drives the lid material unwind function and the pull is defined. The colorless, two-sided monitoring of the splices is ultrasonic. Depending on the application, the station can be extended to include the following elements: an automatic lateral web control, a cutting and splicing table for accurate and convenient splicing of the lid material as well as a print mark control system for specific positioning. Furthermore, an inline printing system can be integrated either on the operating side or on the rear side of the machine.

Quickly adjusts to different settings: the perforating, embossing and punching station

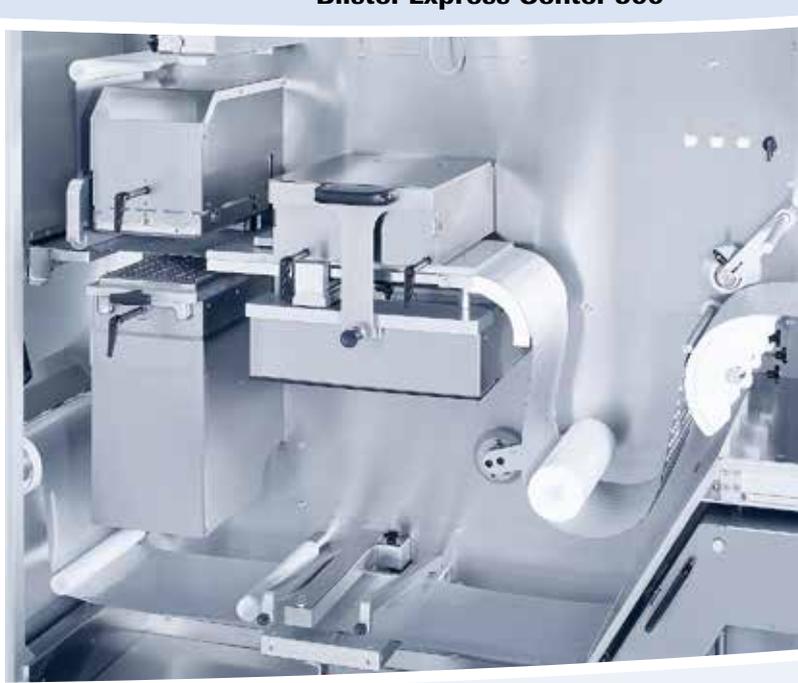
The servo-regulated station for embossing, perforating or scoring and punching is easily accessible from the operating side for fast changeovers from one format to another. PVC and all-aluminum blisters are punched without a cross web to minimize waste and an integrated shredder cuts up the punch waste. The station has just one guide plate to ensure optimum guiding of the web.

Express change

- *Reproducible settings via a digital display; an optional automatic version is available*
 - *Laser monitoring of the pockets in the punch and intelligent multiple-stroke index for highly accurate blister formats*
 - *Lightweight tools*
-



Rotary sealing



Platen sealing

Continuous motion rotary sealing or intermittent motion platen sealing. Top blister quality either way.

Processes all types of forming material: rotary sealing

The servo-regulated rotary sealing handles all types of forming materials and is particularly suitable for standard blisters with round tablets or capsules. The efficient cooling of the index roller ensures an optimum sealing result without any impact on the products. The roller is pivoted for easy access and is lifted automatically when the machine stops. An optional pre-heating function is available for the processing of peel-push lid materials.

Express change

- *Quick-release technology for time-saving, straightforward replacement of the index roller*
 - *Compensation loop to check the web length and monitor the position of the web infeed*
-

Always produces identical results: platen sealing

The principle of platen sealing is particularly suitable for the processing of special lid materials as well as peel or peel-push blisters. The horizontal web displacement is also ideal for applications such as calendar packs or blisters with large-sized aluminum pockets. The innovative technology of the Blister Express Center 500 ensures consistent sealing times irrespective of the number of cycles. This ensures maximum, uniform blister quality.

Express change

- *Lightweight, easy-to-change format parts*
 - *Automatic parameter settings and web adjustment*
-

Flexible: the cartoner module

Well-engineered technology for optimum performance: from transfer of the blisters to all standard versions of carton closure.

Format-free: the blister transfer

The transfer of the blisters to the cartoner module of the Blister Express Center 500 is direct and continuous. The blister transfer requires very few format parts and ensures particularly gentle handling. The blisters are carefully taken from the punch of the blister module and transferred to the blister transfer system. Only good blisters are stacked here ready for loading into the product chain of the cartoner module.

An optical, contact-free product inspection system reliably detects incorrect stacks with too many or too few blisters. Should a separate production zone be required, the cartoner module can be screened off from the blister module by a pharmaceutically compliant panel.

Express change

- *Just one format per blister size*
 - *Automatic adjustment to new blister and carton formats*
 - *Redundant waste container for quick replacement*
-

Accurate and noise-reduced: the leaflet folder

The leaflet folder handles leaflets up to 60 mm wide and positions them evenly around the blisters irrespective of the stack height. To reduce the sound level, the leaflet folder is installed behind the protective doors of the Blister Express Center 500. Ergonomic filling is carried out from the operating side of the machine.

Express change

- *Easy adjustment of the fold pockets*
 - *Can be pulled forward and turned to either side for filling and servicing*
-





Good accessibility: the leaflet folder can be pulled forward and turned

Patented: the carton feeder

The maintenance-free carton magazine can be raised to a height of 1.6 meters for convenient filling and cleaning. The carton blanks are carefully transported to the pick-up position by driven, guided belts. The patented carton erection system reliably handles blanks of critical quality as well as cartons made of recycling material.

Express change

- *Automatic adjustment to a new format*
 - *Easy, semi-automatic initial filling*
 - *Quick-change suction arms and erector flaps*
-

Tried and tested: the product loading function

An optimized drive system guarantees smooth running, top speed and maximum process reliability. The product and leaflet loading system pushes the blisters and the leaflet quickly and accurately into the carton. It has already proven its worth in over a thousand applications worldwide. The product loader is clearly visible and easily accessible from the front.

Express change

- *Fast, tool-free replacement of format parts*
 - *Automatic adjustment to different stack heights*
-

Diverse: the closing systems

The carton module of the Blister Express Center 500 offers the option of all standard tuck-in and hot-melt closing systems, also with a fourth flap. Changing to a different system at a later date poses no problems because modifications to the basic machine are not necessary. This is also the case for the integration of laser and inkjet printing systems as well as coding and inspection equipment for unique identification in compliance with current tracking and tracing legislation.

Intuitive: the operating system

All functions of the Blister Express Center 500 are controlled centrally via the intuitively comprehensible SmartControl operating system. Auxiliary aggregates such as cameras, checkweighers, code readers or leaflet folders are all integrated into the central operating system.

Easy to use: the SmartControl operating system

Intuitive, process-oriented, standardized: the SmartControl generation ensures correct, simplified operation right from the start.



Easy and efficient operation: the clear, uniform structure of SmartControl allows intuitive operation of the line in accordance with the ongoing production process.



Immediately comprehensible displays: on the right, the machine speed; in the center, production figures of the current batch; in the circular dial on the left, the OEE, and beneath, indicators showing the remaining quantities of tablets/forming material, etc.

Always visible: the top bar shows the current machine operation mode – “production” in this case – with monitored information on the product and batch

In the headline: information including machine number, operator, date, time

In the lower bar: current step of the production process – with relevant navigation options

A key element for productive, flexible packaging with the Blister Express Center 500 is the likewise SmartControl operating system. Equally easy to operate and functional, SmartControl defines a new standard of intuitively correct operation – from the outset, worldwide, and even with new operating staff. The interaction is “preprogrammed” and activated by tapping on immediately comprehensible symbols and buttons or using the familiar scroll movement.

Process-oriented: the navigation

Process-oriented assistants navigate the operator through the packaging process. An assistant is available for every relevant production step and clearly describes the procedure. One example is the step-by-step guidance through a format changeover. Mistakes are ruled out with the SmartControl operating system.



Spatial visualization of the stations: control elements are directly related to their function – in this case, the heating station with the separate heating plates

Another SmartControl feature is scalable operation with direct control access at the machine or remote access via mobile devices on the basis of a coordinated authorization system. Furthermore, the web-based technology allows the integration of machines and aggregates from other suppliers as well as the use of Uhlmann apps for additional functions specifically developed for SmartControl.

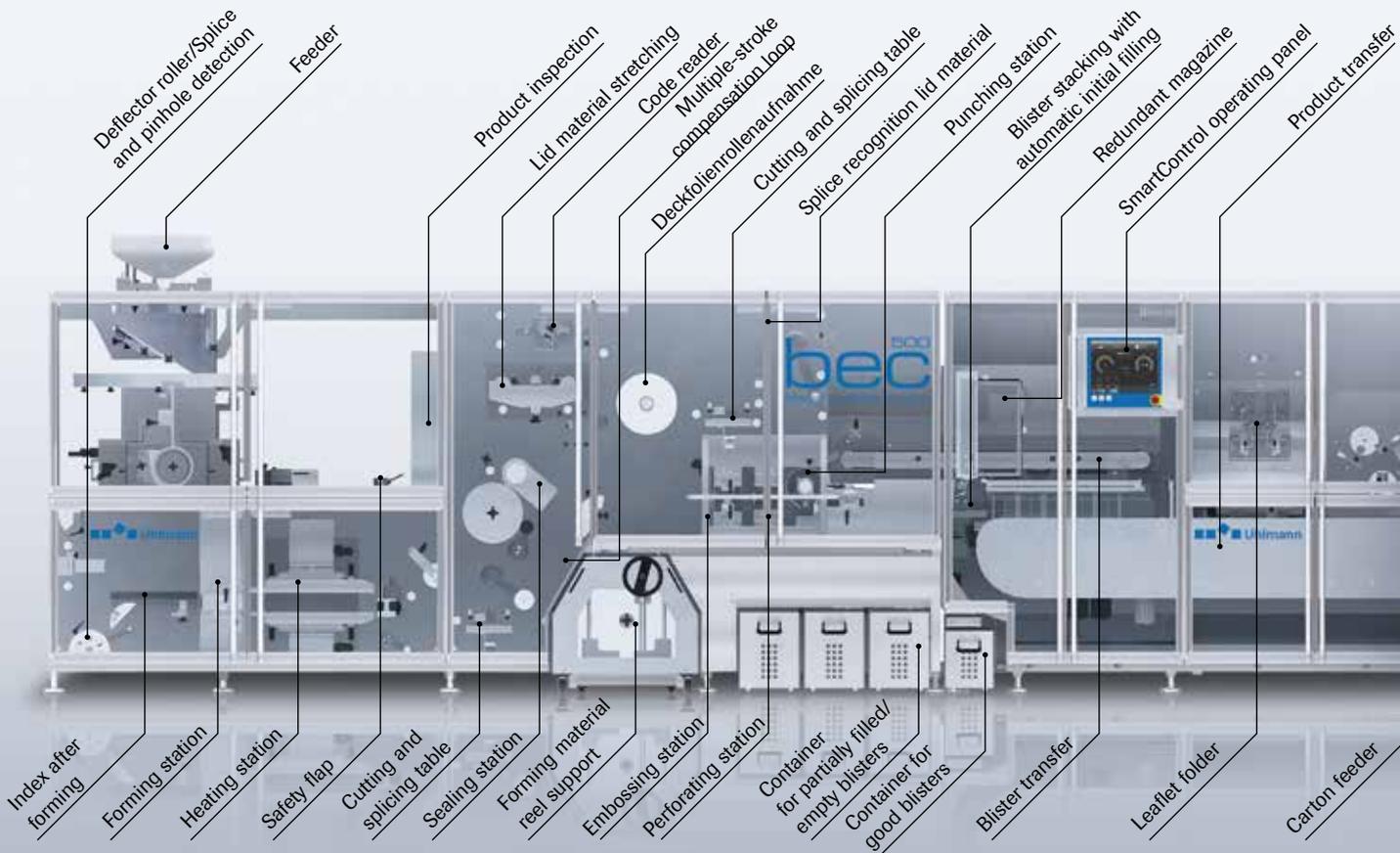
Flexible: the modular design

Inspection and marking systems, feeders, end-of-line packaging machines and Track & Trace by Uhlmann all contribute to a highly efficient, pharmaceutically reliable packaging process.

Maximum flexibility and productivity – the Blister Express Center 500 meets this promise in all respects. The line can be customized to meet specific requirements by adding suitable components.

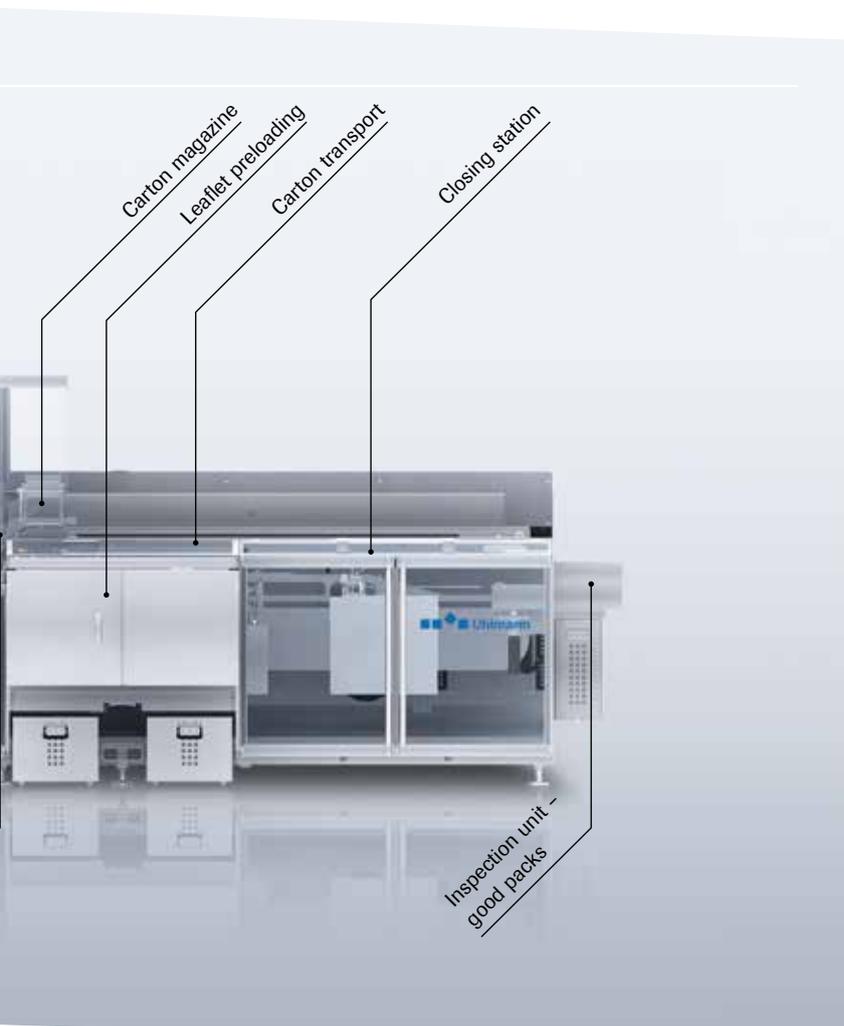
The first step toward individual configuration on the basis of the modular design principle is governed by

the type of forming materials to be processed and the product shapes. These factors influence the decision in favor of rotary or platen sealing and determine the type of feeder. The output of the cartoner module is also variable: the standard model attains an output of 300 cartons per minute while up to 500 cartons per minute can be packaged with a more powerful



cartoner module. Furthermore, a booklet feeder for the feeding of stapled or glued information material can be integrated into the cartoner module. The packaging line can also be optimally extended by an Uhlmann end-of-line packaging machine. The Case packer E 4004, for example, is the perfect match for the Blister Express Center 500.

Suitably coordinated printing, identification and inspection systems can also be integrated inline such as a Track & Trace by Uhlmann solution to guarantee maximum pharmaceutical reliability. No matter which modules are included in a customized line, the result is always the same: a highly efficient packaging process.



The Blister Express Center 500 at a glance

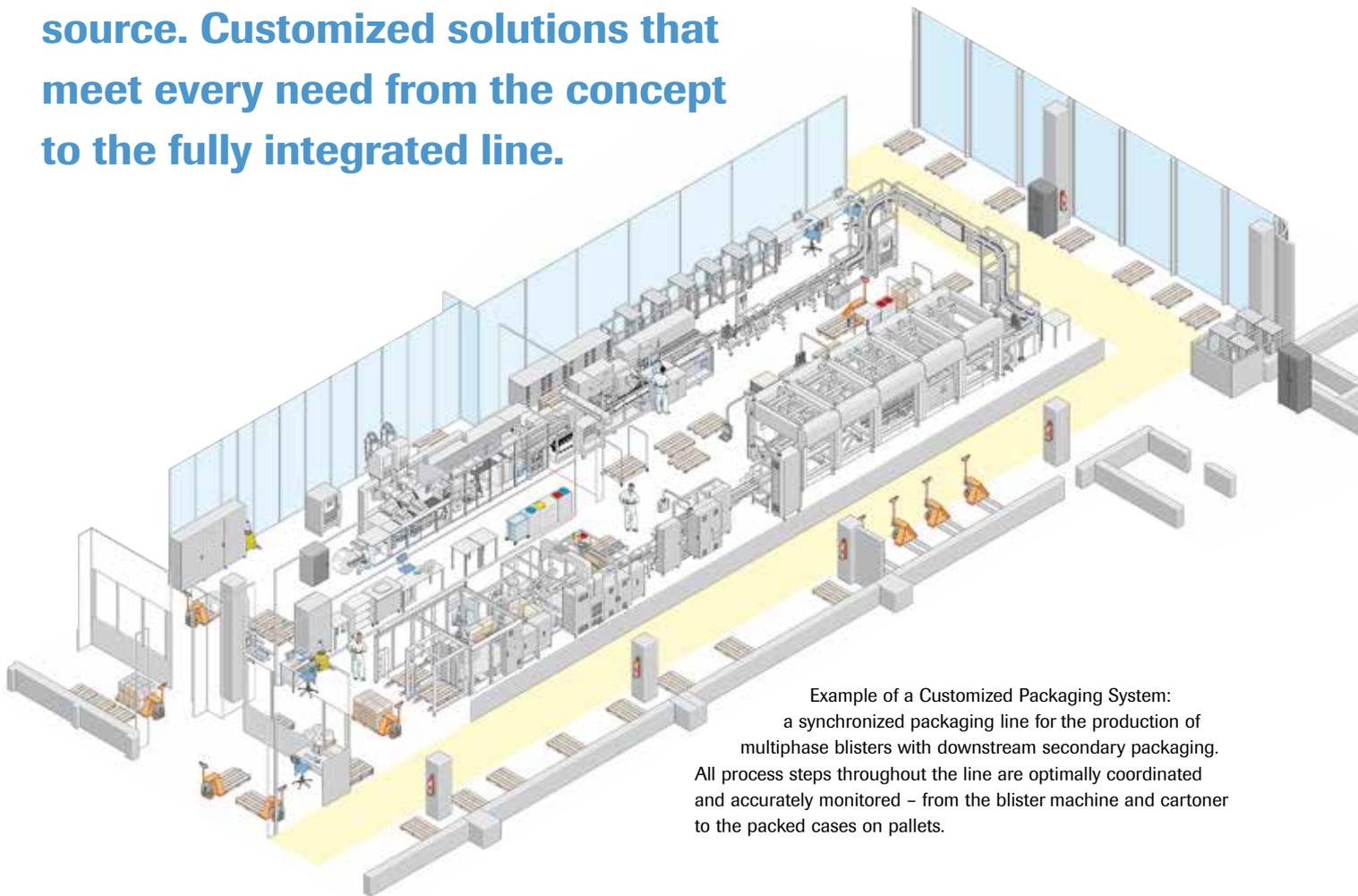
The blister module

Output [1/min]	max. 500 blisters
Sealing principle	platen or rotary sealing
Mode of operation	double-lane
Scope of application	solid dose products
Format area	
Index x width	max. 200 x 284 mm
Forming depth	max. 12 PVC, 11 mm Al
Forming material width	max. 300 mm
Forming material reel diameter	
Forming material	600 mm
Lid material	300 mm
Processable forming materials	laminated Al foils, PVC, PVC/PVDC, PVC/Aclar, PP
Processable lid materials	hard Al, soft Al, paper/Al, Al with defined hardness, others on request

The cartoner module

Output [1/min]	max. 300 or 500 cartons
Scope of application	blisters
Carton size (A x B x H)	max. 105 x 105 x 155 or 80 x 90 x 155 mm
Pitch	5" or 4"
Number of blisters	max. 14
Blister stack height	100 or 85 mm
Types of closure	tuck-in or hot-melt

Guaranteed process quality from a single source. Customized solutions that meet every need from the concept to the fully integrated line.



Example of a Customized Packaging System: a synchronized packaging line for the production of multiphase blisters with downstream secondary packaging. All process steps throughout the line are optimally coordinated and accurately monitored – from the blister machine and cartoner to the packed cases on pallets.

Uhlmann specialists develop and realize customized packaging solutions from the company's extensive range of blister machines, counting and filling machines for solid dose products in bottles, cartoners, stretch-banding machines, overwrapper, case packers and palletizer. Optimum combination of the line components ensures perfect integration into the respective production environment.

The focus is not only on the systematic combination of machines but also on the production process as a

whole. This includes design and feasibility studies, support in the development of packaging materials and blister configurations, the integration of additional components or software packages. Furthermore, as a general supplier, Uhlmann takes over responsibility for the project management and offers a one-stop turnkey service. Coordination and scheduling, logistical support, quality assurance, documentation, validation, communication, best possible workflows and on-site support are all part of the package.

Productive line combinations

Packaging of solid dose products in blisters, cartons, cases and on pallets 	Blister machines	Cartoners	Stretch-banding machines, Overwrapper	Case packers	Palletizer
	B 1240 max. 250 blister/min. B 1330 max. 300 blister/min. UPS 5 max. 400 blister/min. B 1440 max. 500 blister/min. UPS 1030 ET max. 560 blister/min. B 1660 max. 750 blister/min. B 1880 max. 1.300 blister/min.	C 130 max. 150 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.	S 3015, S 3025, S 3040 max. 150/300/400 (500*) cartons/min. or 15/30/40 (50*) bundles/min. E 3025, E 3040 max. 300/400 (500*) cartons/min. or 30/40 (50*) bundles/min. E 3060 max. 500 cartons/min or 60 bundles/min.	E 4004, E 4012 max. 300/500 cartons/min. or 60 bundles in 4/12 cases	P 5020 max. 20 operating cycles/min.
Packaging lines incorporating a blister and a cartoner module			Packaging lines incorporating a case packers and a palletizer		
Blister Express Center 300 max. 300 blisters/min. and max. 150/300 cartons/min. Blister Express Center 500 max. 500 blisters/min. and max. 300/500 cartons/min.			Case Packaging Center 10		
			E 4010t max. 265bottles/min. max. 300 cartons/min. in 10 cases	P 5010 max. 10 operating cycles/min.	

Counting of solid dose products and packaging in bottles, cartons, cases and on pallets 	Tablet counting and feeding machines	Cartoners	Stretch-banding machines, Overwrapper	Case packers	Palletizer
	Integrated Bottle Center 120 max. 120 bottles/min. Integrated Bottle Center 240 max. 240 bottles/min.	L 180 max. 180 bottles/min. (round) max. 165 bottles/min. oval (convex), square L 250 max. 250 bottles/min. (round)	C 2155 max. 120 cartons/min. C 2156 max. 150 cartons/min. C 2206 max. 200 cartons/min. C 2305 max. 300 cartons/min.	S 3015, S 3025, S 3040 max. 150/300/400 (500*) cartons/min. or 15/30/40 (50*) bundles/min. E 3025, E 3040 max. 300/400 (500*) cartons/min. or 30/40 (50*) bundles/min. E 3060 max. 500 cartons/min. or 60 bundles/min.	E 4004, E 4012 max. 300/500 cartons/min. or 60 bundles in 4/12 cases
Labelers		Packaging lines incorporating a case packers and a palletizer			
		Case Packaging Center 10			
		E 4010t max. 265bottles/min. max. 300 cartons/min. in 10 cases		P 5010 max. 10 operating cycles/min.	

Änderungen im Sinne des technischen Fortschritts vorbehalten.

*optionale Leistungserweiterung

The complete range of support services

A full range of top quality machines for diverse applications – that is one aspect of Uhlmann's expertise. The other is the company's Customer Service division. This center of excellence is based on

four customer-focused modules: Format and Spare Parts, Professional Assistance, Machine Efficiency, and Process Reliability. These are subdivided into individual support services that serve the smooth operation of a



Format and Spare Parts

- **TopTools**
- **Spare Parts**
- **E-Shop**
- **PartsManager**

Top quality is a matter of course as far as new format parts, spare parts and tools are concerned. However, only a TopTool from Uhlmann guarantees maximum precision, plug-and-play reliability and top performance. Furthermore, original spare parts can be ordered quickly as required – through the E-Shop in Internet or by using the electronic spare parts catalog on CD-ROM.



Professional Assistance

- **Maintenance**
- **24h Service**
- **NetSupport**

Consistent machine availability is one of the prerequisites for efficient packaging. Preventive and proactive maintenance ensure production reliability. Online remote maintenance via NetSupport and the 24h telephone hotline provide prompt support in urgent cases.

machine or line after installation.

They can be selected and combined as required on the basis of individual customer advice and support.

Prompt, uncomplicated expertise offered by a well-

coordinated, globally represented service team.

For maximum flexibility, reliability and efficiency over the entire life cycle of a machine. In short: customer support services with added value.

Uhlmann Customer Service for maximum added value



Machine Efficiency

- **Upgrades**
- **Production Analysis and Output Optimization**
- **Production Support**

Efficiency has many facets. Effective workflows, state-of-the-art technology, optimum packaging materials, qualified personnel. To ensure full use of the potential of all different packaging processes, Uhlmann offers a whole range of solutions for greater efficiency.



Process Reliability

- **Personnel Training**
- **Validation and Calibration**
- **Film Competence Center**

Uhlmann meets all requirements in terms of process reliability. Support services cover TopmanTraining for well-trained staff, Validation and Calibration for tested and documented production, and the Film Competence Center for optimized packaging materials.

Would you like to learn more about the Uhlmann support services? Visit www.uhlmann.de or request the brochure on the complete range of support services by sending an e-mail to info@uhlmann.de.

The principle of success: thinking in pharmaceutical dimensions

How can a medium-sized family company manage to not only retain but continuously improve its standing in today's world? How is it possible to use one's own strength to shape the pharmaceutical packaging market in such a sustained manner in competition with competent machine construction companies? The answer is simple: *Multum non multa*. Quality not quantity.

Concentration on one thing continues to be the company's motto to this day: the packaging of pharmaceutical products and nothing else. This is the strategic philosophy that defines Uhlmann's standards and governs their implementation as market-oriented concepts. This philosophy has given Uhlmann a leading

edge: with more than 8,000 machines operating in 80 countries throughout the world. With a comprehensive product portfolio supplemented by the product ranges of VisioTec and KOCH Pac-Systeme.

Proximity to the customer and proximity to the markets: alongside technological competence that is the second criterion for success. Uhlmann has over 40 representatives worldwide. Companies of the Uhlmann Group operate in the USA, Brazil, the UK, France, Sweden, Spain, Russia, Switzerland, Singapore and China. Altogether, some 1,500 people work in a corporate culture environment dedicated to total quality. Every day they readdress a single issue: optimization of the packaging process.

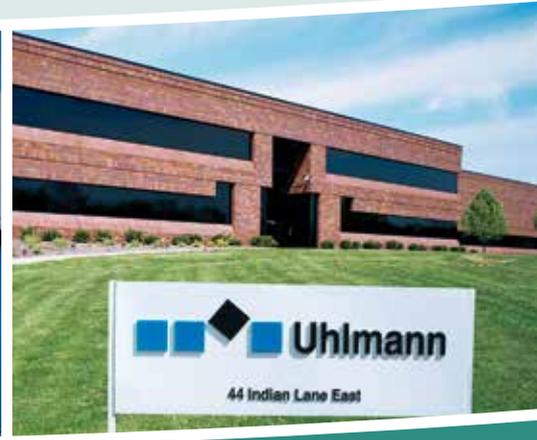
You will find more technical information on Uhlmann machines at www.uhlmann.de and in the detailed product brochures. Brochures are available through the website or can be requested by sending an e-mail to info@uhlmann.de.



The Uhlmann headquarters in Laupheim, Germany accommodate Development, Design Engineering and Production



Multum non multa. Quality not quantity.



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