

Customized machine technology

The KOCH portfolio for optimized blister packaging



Cost-efficient, future-oriented, modular: packaging technology made by KOCH

Flexibility as foremost principle

Innovative technology combined with broad experience is the basis upon which we develop and implement individualized machine solutions for the packaging of a wide variety of products in transparent, rigid blister packs. Machine solutions accurately tailored to your requirements, suited to your market and your production environment. In every case, they guarantee a cost-efficient and reliable packaging process – whether the semi-automated sealing of preformed blisters, a fully automated forming, filling and sealing process, or the integrated, end-to-end handling of a product from feeding to end-of-line packaging.

Surgical instrument in a Tyvek® blister pack



Robot handling system for accurate placement of products in preformed blisters

Multipart brand-name toy in blister with specially formed inlay



Mascara protected in face seal blister to prevent drying out and contamination



Electric toothbrush with batteries in a specially formed double blister (blister to blister)



Feeding and handling system for a cosmetic product

Lip balm in a cardboard mono-material pack



Modular machine technology – the ideal solution for your product

Semi or fully automated blister machines of modular design for forming, filling and sealing

Significantly extended format area and large forming depth also allow the handling of bulkier products

Good machine accessibility for fast changeovers and easy maintenance

State-of-the-art IPC control technology with user-friendly guidance via touchscreen

Integration of additional components for feeding, inspection and marking

Coordinated modules for space-saving grouping and end-of-line packaging ready for transport – with seamless integration into the production process.

Maximum flexibility is the key criterion of all KOCH blister machines. It is attained with a modular design concept. Every machine comprises a basic module as well as additional components with which we configure the ideal packaging machine. Incorporating film and card feeding, robot handling systems as well as inspection and marking systems, we integrate precisely those modules required to provide you with a highly efficient packaging process.

Our portfolio includes blister machines in all output categories for a wide range of product types, shapes and sizes. In addition to standard equipment, we offer special, highly individualized complex machines as well as the KOCH packagingLine – an extremely flexible, fully automated line for integrated, end-to-end packaging processes.

Safety redefined: KOCH medplus

Our response to the broader safety and quality requirements governing the packaging of medical and pharmaceutical products is the brand KOCH medplus. All machines from our portfolio bearing this name are systematically geared to validation-conform packaging.

Product, blister type, packaging solution: each complements the other

Straightforward to complex blister packaging

Whether consumer or industrial products, whether cosmetic, personal care or medical products – as well as ensuring an appealing production presentation, easy handling and maximum waste material recycling, a blister pack must fulfill other functions. It should protect the product against external influences, withstand impact and pressure and, in the case of cosmetic articles and particularly sterile, medical products, be completely tight to ensure a hygienic environment prior to opening. These specifications can only be met satisfactorily when the product, blister type and packaging technology coordinate perfectly.

Face seal blister



S sealing	FFS forming / filling / sealing
KST	KBS-PO
KDT	KBS-PT
	KBS-PL
	KBS-KF

- Reasonably priced production form, e.g. for low-priced mass products

- Rectangular blister smaller than the backing card
- Sealing of the blister to the ready-made card

- Semi-automated option just with sealing of the preformed blister

Trapped blister



S sealing	FFS forming / filling / sealing
KST	KBS-PO
KDT	KBS-PT
	KBS-PL

- Optically upscaled option with hidden sealing edge
- No joining of the cards and the blister forming material so allows separate recycling
- Second blister card required

- Rectangular blister smaller than the cards
- Collation of the backing card, loosely inserted blister, product and punched front card
- Sealing of the two cards

- Technically more complex than alternative 1 due to the card – blister – card principle
- Semi-automated option just with sealing of the preformed blister
- Optional alternative as a reclosable box

Blister with lid material from roll



S sealing	FFS forming / filling / sealing
KST	KBS-PO
KDT	KBS-KF

- Completely tight packs possible, e.g. for medical products
- Different lid forming materials can be used
- Optional use of the same material for the blister and lid for easier recycling

- Forming and filling of the blister
- Sealing of the blister with a film lid
- Cutting or punching of the blister

- Technically more complex than alternatives 1 and 2

Blister types

Blister to blister (double blister)



S sealing	FFS forming / filling / sealing
KST	KBS-KF
KDT	

- Transparent product presentation, optically attractive from either side

- Forming of two identical or differing blister halves for the front and back
- Filling of one blister half
- Sealing of the two halves
- Cutting and/or punching of the blister – only possible with KBS-KF

- Technically more complex than alternatives 1 to 3

Clamshell



FFS forming / filling / sealing
KB-KF plus KS-PL in line

- Versatile packaging form comprising two joined, hinged blister halves
- Attractive product presentation

- Cutting or punching of the open halves
- Filling of the preformed blister halves
- Closing of the clamshell

- Sophisticated packaging, machine costs comparable to alternative 4
- Optional alternative as a reclosable box

Cardboard mono-material pack



S sealing	FFS forming / filling / sealing
KDT	KBS-PO
	KBS-PT
	KBS-PL

- Suitable for sturdy, tightly closed products for everyday use
- Only cardboard packaging material, with or without a window in the front cover

- Forming of the cardboard cover out of prepared blanks cut smaller than the ready-made backing card
- Product placement and sealing of the cardboard cover to the backing card

- Most reasonably priced alternative with low-end machine technology without a forming machine but additionally including a carton blank placer
- Additional costs due to the higher price of cardboard cover blanks compared to blister forming material
- Limited design options as restricted to rectangular forms

Irrespective of the product you wish to package: you receive the appropriate packaging solution based on your specifications. In the form of a standard machine or a customized solution suited to the product in terms of type of packaging and costs: simple and low-priced for mass goods, more sophisticated types of packaging and machine technology for products of higher value.

Central element is an individually configured blister machine from the KOCH portfolio – starting with the basic module for forming, filling and sealing (FFS) or just for sealing (S) – plus the respectively required additional components. The ideal packaging solution does not stop there though: we help our customers to select suitable types of forming material and cardboard qualities, optimize material consumption and, if required, make sure that the packaging materials can be recycled separately.

The brand for the optimized packaging of medical products: KOCH **medplus**

Special skills in machine construction and consultation



Multipart infusion set

Safety, flexibility, qualification and validation – these are the core issues to be answered when it comes to the planning of a blister machine or line for the packaging of medical products. Particularly important here is full insight into the susceptible products, the exacting marketplace, and the particular specifications governing the packaging process, also regarding traceability in compliance with respective national tracking and tracing legislation. Based on our years of experience gained from many customized packaging machine projects, we have stepped up our skills to a new standard in this sector – with the brand KOCH medplus.



Medical salve in a face seal blister



medplus ...

... the brand name for top quality, maximum productivity and 100-percent reliability. All the machines described here are available in the version medplus as are all customized machines and lines.



Surgical instrument for eye operations in rigid Tyvek® blister pack



Dosimeter to measure the radiation dose received by medical staff

Added value of the brand medplus

- GMP machine design
- Machine construction according to GEP standards: no hollow areas, special lubricants, superior surface quality
- Calibration of relevant process parameters for reproducible packaging quality
- Hygienic design: easy cleaning, use of medically acceptable materials
- Suitable for cleanroom applications
- Qualification and validation documentation in accordance with GMP, GAMP5, ISO and FDA
- Individual project management by a team of specialists from all professional fields

Plus factors in terms of technology and special features are combined with specific customer support through our business unit Medical Technology. A team of specialists from Development, Design, Production, Sales, Programming and Final Assembly solely concerns itself with transforming your individual needs into the best respective packaging process. We offer our expertise from the outset, provide advice at all stages, take over full implementation, and manage the project from start to finish.

Packaging technology with added value

As equally important as additional advice and assistance are the diverse features and associated support services which distinguish each machine solution with the name medplus. Whether a standard machine, a special complex machine or a fully automated, highly flexible KOCH packagingLine: GMP-compliant design and construction according to GEP standards, suitability for cleanroom applications, and qualification and validation documentation are a matter of course. Simply everything that is required for the optimized packaging of medical products.

Productive at the touch of a button: entry model for small batches

KOCH Sliding Table Machines KST and KST plus

Technical data KST

Blister depth:
max. 105 mm

Sealing format:
350 x 500 mm

Sealing force:
6 to max. 36 kN

Tool height:
106 mm

Technical data KSTplus

Blister depth:
67 mm

Sealing format:
280 x 280 mm

Sealing force:
56 kN

Tool height:
70 mm

The packaging of small batches of different products in quick succession on a small footprint – this succinctly defines the Sliding Table Machine KST – available with two different sealing formats. Benefits, including an excellent price-performance ratio, low follow-up costs and straightforward operation with automatic start-stop function, make the smallest machine in the KOCH portfolio the ideal entry model for productive blister packaging. The modular concept of the machine permits configuration for sealing and/or forming. Operation of the KST is remarkably easy: a format changeover is completed in a matter of minutes. Once the sealing temperature, force and duration are programmed via the touchscreen the KST is ready for operation.

Extension options

The feed of the sliding table for sealing on the basic KST model is manual; the sealing temperature is controlled electronically. The first extension option equips the KST with a pneumatic table feed, a programmable control system, and an operating panel with plain text display. The second extension option adds a combined sealing and forming station.

*Sliding Table Machine KST
with optional trolley with
integrated tool storage system*



*The rubber seals and
spring pins on the sealing tools
are easily replaced.*





Perfect sealing at high force in a compact machine: the Sliding Table Machine KSTplus

Effortless handling of aluminum blisters: KSTplus

The KSTplus is fitted with a manual table feed and an electronic sealing temperature control system. The sealing station is capable of sealing at a three-times higher force. This and the significantly smaller format area in comparison to the KST make the KSTplus the optimum solution for the packaging of small batches of medical and pharmaceutical products in, for example, aluminum blisters.

Benefits of the KST and the KSTplus

- Excellent price-performance ratio
- Reasonably priced format parts and fast format changeovers
- Small footprint and low energy consumption
- Straightforward operation with automatic stop-start function
- KSTplus with very high sealing force suitable for the processing of aluminum blisters

Syringes in a blister pack



Sliding table of the KSTplus with quadruple sealing tool for four products



Blister types



Face seal blister



Trapped blister



Blister with lid material from roll



Blister to blister

Ideal packaging of diverse products, e.g.

- Medical products
- Pharmaceutical products
- Tubes
- Toothbrushes
- Fuses
- ...



Simply access the KST video via smartphone

Variable compact form: forming, sealing or both

KOCH Turntable Machine KDT

*Turntable Machine KDT
with four stations for fast,
cost-efficient forming and
sealing.*



Technical data KDT

Blister depth:

70 mm

Sealing format:

250 x 350 mm

Sealing force:

16 kN

Tool height:

50 or 70 mm

Output [cycles/min.]:

Sealing/sealing with

Front card placer: 10-12

Forming and sealing: 5-12

State-of-the-art machine technology for the packaging of small to medium-sized batches while keeping costs under control: the compact Turntable Machine KDT offers all you need to achieve this. In terms of costs, the low initial outlay, reasonably priced format parts and economical energy consumption speak in favor of the KDT. As far as technology is concerned, the machine concept offers either forming, sealing or a combination of both process steps.

Compared to the Sliding Table KST, the KDT has a turntable with four sealing tools, which guarantee a higher cycle rate. Other features include a backing card placer, a sealing unit for thermal sealing as well as a product remover. The machine is controlled using an IPC and touchscreen with plain text display.



*Left: Turntable with
90 ° cycle*

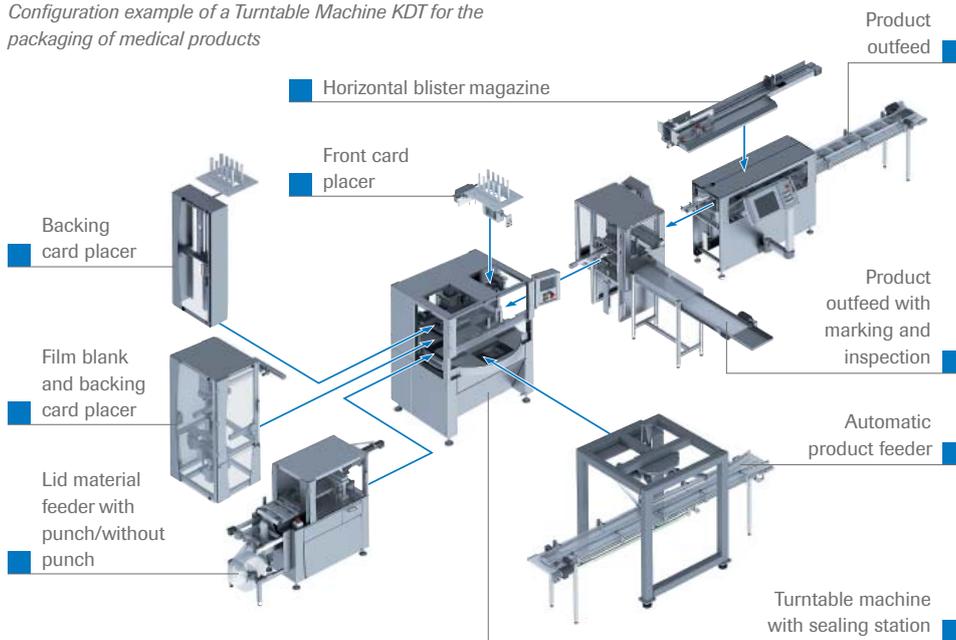
*Right: Automatic
blister placing*



Marker pen in a face seal blister

- Benefits of the KDT**
- Low capital costs
 - Reasonably priced format parts and fast format changeovers
 - Small footprint and low energy consumption
 - IPC control system with touchscreen, optional modem connection for remote diagnosis
 - Mobile as fitted with lockable casters

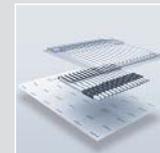
Configuration example of a Turntable Machine KDT for the packaging of medical products



Extension options

The KDT is available with a combined forming and sealing station for the processing of blisters with card or paper lids. An additional card placer system allows the feeding of different pack parts such as blanks for cardboard mono-materials or front cards for trapped blisters. Optional components for high-frequency or ultrasonic sealing are available for the processing of different packaging materials. Customized configuration enables you to add the components you need for your ideal, productive packaging process.

Blister types



Face seal blister



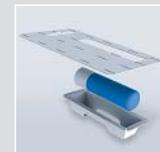
Trapped blister



Blister with lid material from roll



Blister to blister



Cardboard mono-material pack

Ideal packaging of diverse products, e.g.

- Glue sticks
- Light bulbs
- Spare parts
- Razors
- Cosmetic products
- Medical products
- ...



Simply access the KDT video via smartphone

NEW

Format and product diversity - hygienically packaged in the smallest of spaces

KOCH Blister Machine KBS-PO with oval pallet transport



*The KOCH Blister Machine
KBS-PO with oval pallet transport*

Technical data KBS-PO

Blister depth:
max. 100 mm

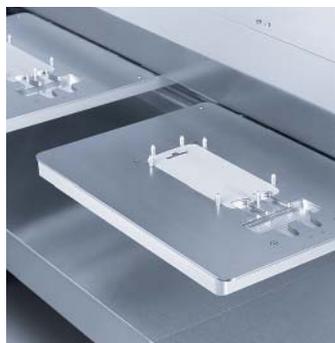
Forming area:
200 x 300 mm

Sealing format:
250 x 342 mm

Output [cycles/min.]:
14, depending on forming
material, blister shape/size
and sealing duration

Blister Machine KBS-PO for fully automated end-to-end blister forming and sealing is based on a well-conceived machine concept for the reliable, productive and cost-optimized packaging of small to medium-sized batches. The machine operates with utmost precision at a speed of up to 14 cycles per minute. The large format area and the generous forming depth permit the packaging of bulkier products. Special feature of the KBS-PO is the oval pallet transport. The integrated, space-saving pallet section is easily accessible and can be conveniently loaded by several persons.

The tool-free exchange of the sealing tools and fast format changeovers guarantee maximum flexibility of the KBS-PO. This cuts time and costs thus ensuring cost-efficient packaging even for small-sized batches.



*The height of the pallet
transport system permits
ergonomic blister loading*

Benefits of the KBS-PO

- Flexible machine concept for the efficient packaging of different formats
- Low capital costs
- Tool-free retooling and quick format changeovers
- Compact machine design with small footprint and oval pallet transport
- State-of-the-art IPC control technology
- Intuitive operator guidance via touchscreen

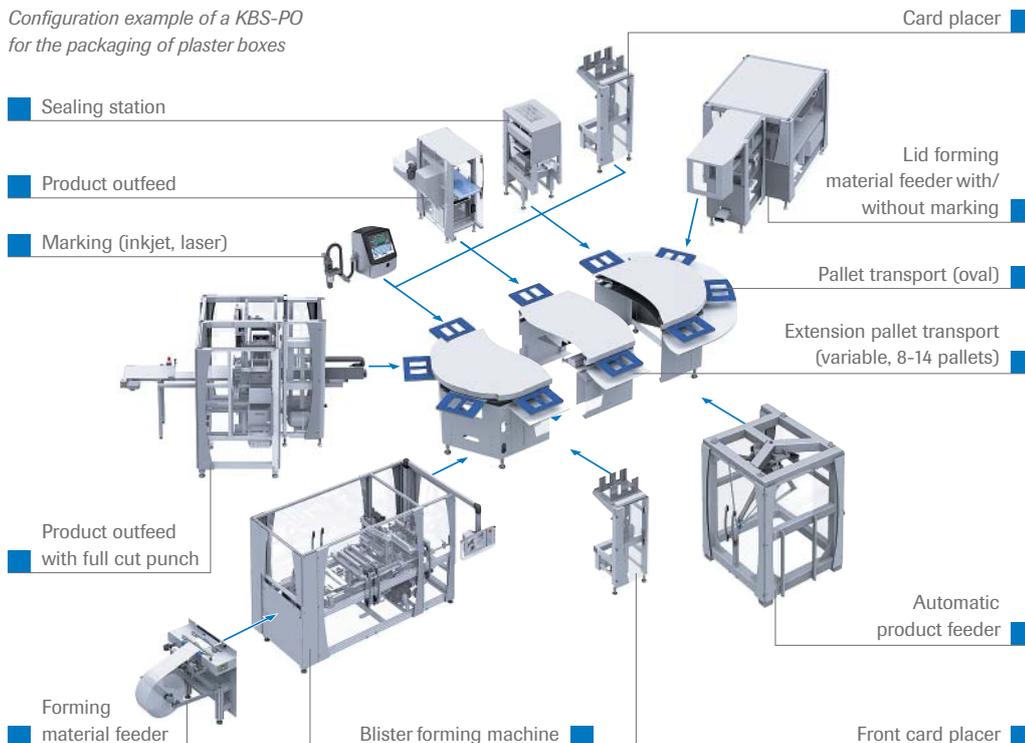
Plaster box sealed in rigid Tyvek® blister pack



Integration and extension

Depending on the application, the KBS-PO allows the seamless integration of additional stations and components. Camera monitoring and inspection systems, labelers, robot product feeders, blister feeders or lid material feeding from the roll can be incorporated from the outset or added at a later stage.

Configuration example of a KBS-PO for the packaging of plaster boxes



Blister types



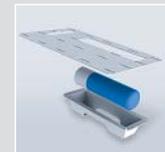
Face seal blister



Trapped blister



Blister with lid material from roll



Cardboard mono-material pack

Ideal packaging of diverse products, e.g.

- Kitchen knives
- Batteries
- Toothbrushes
- Cosmetic products
- Medical products
- ...

Eight-sided multi-talent: flexible in terms of material, format, batch size

KOCH Blister Machine KBS-PT with octagonal pallet transport



KOCH Blister Machine KBS-PT with forming material feeder, forming station, sealing station and octagonal pallet transport

Technical data KBS-PT

Forming area:

250 x 500 mm

Forming depth:

67 mm

Sealing format:

320 x 600 mm

Output [cycles/min.]:

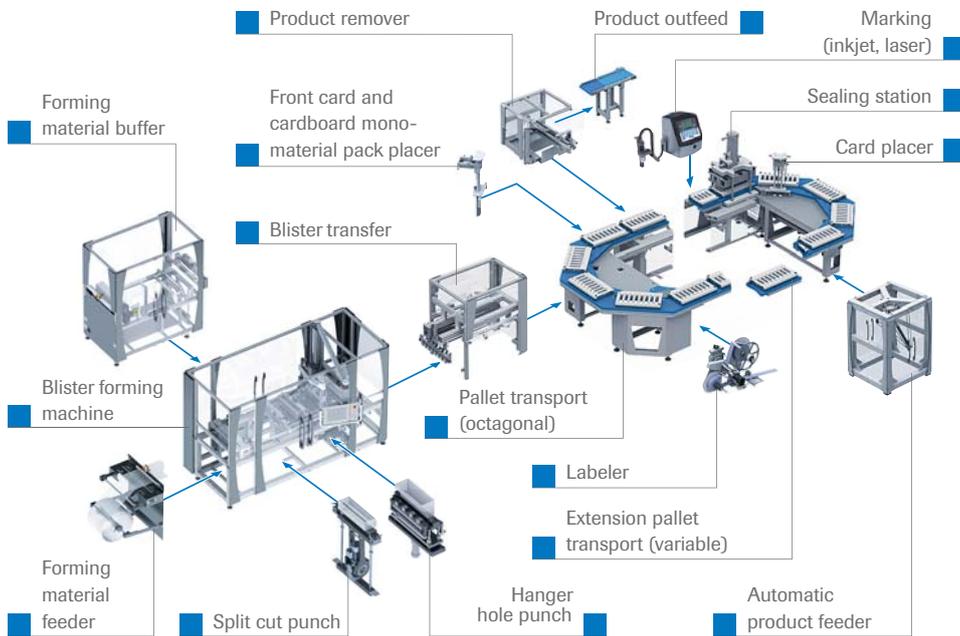
14, depending on forming material, blister shape/size and sealing duration

Fast format changeovers, high packaging capacity and flexibility for the processing of diverse formats and materials are the criteria on which the machine concept of the Blister Machine KBS-PT is based. Distinctive technical feature is the octagonal pallet transport – this makes the machine very compact. The pallet section is easily accessible for the addition of other stations/components and can be served manually by several members of staff.

The great flexibility of this machine is attributed to two main factors. Firstly, the sealing pallets are quickly replaced. Secondly, an important aspect for the cost-efficient packaging of even small batches: only individual format parts and not the complete set have to be exchanged for a format changeover.

Integration and extension

As with all KOCH blister machines, the KBS-PT can also be extended to include additional stations and components depending on the application. Camera and inspection systems, labelers, pick-and-place robot feeders, additional card placers and end-of-line packaging machines can be incorporated from the start or added at a later date – seamless integration then results in an entire KOCH packagingLine.



Configuration example of a KBS-PT for the packaging of office products

Benefits of the KBS-PT

- Flexible machine concept for the efficient packaging of alternating formats
- Cost-efficient packaging even of small batches as few format parts need changing
- Compact machine design with octagonal, easily accessible pallet transport
- State-of-the-art IPC control technology
- User-friendly operation with touchscreen

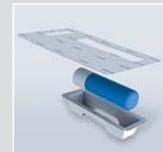
Blister types



Face seal blister



Trapped blister

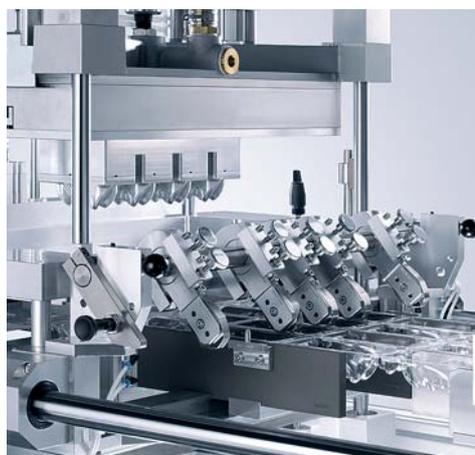


Cardboard mono-material pack

Ideal packaging of diverse products, e.g.

- Batteries
- Homeware
- Stationery
- Office products
- Light bulbs
- Toothbrushes
- Air fresheners
- Toys
- Cosmetic products
- Tubes
- Confectionery
- ...

Blister forming station with longitudinal cutters to separate blisters



Set of baby products attractively packaged and well protected in a face seal blister



Simply access the KBS-PT video via smartphone

Time-tested technology: with a high number of cycles for large batches

KOCH Blister Machine KBS-PL with linear pallet transport



Blister Machine KBS-PL for highly efficient packaging with proven technology for blisters made of PVC, PET or other rigid plastics.

Technical data KBS-PL

Forming area:

250 x 500 mm

Forming depth:

67 mm

Sealing format:

238 x 580 mm

Output [cycles/min.]:

20, depending on forming material, blister shape/size and sealing duration

Maintaining maximum productivity in the packaging of large batches of the same or similar products with consistent processing of all standard rigid forming materials is a matter of course for the Blister Machine KBS-PL with linear pallet transport. Technical features of the KBS-PL include the large format area – suitable for large-format, stand-up blisters or hanging blisters with a standard hanger hole – as well as the pallet section, which can be served manually or by a robot handling system. The user-friendly, clear-cut design allows full control of production at all times.

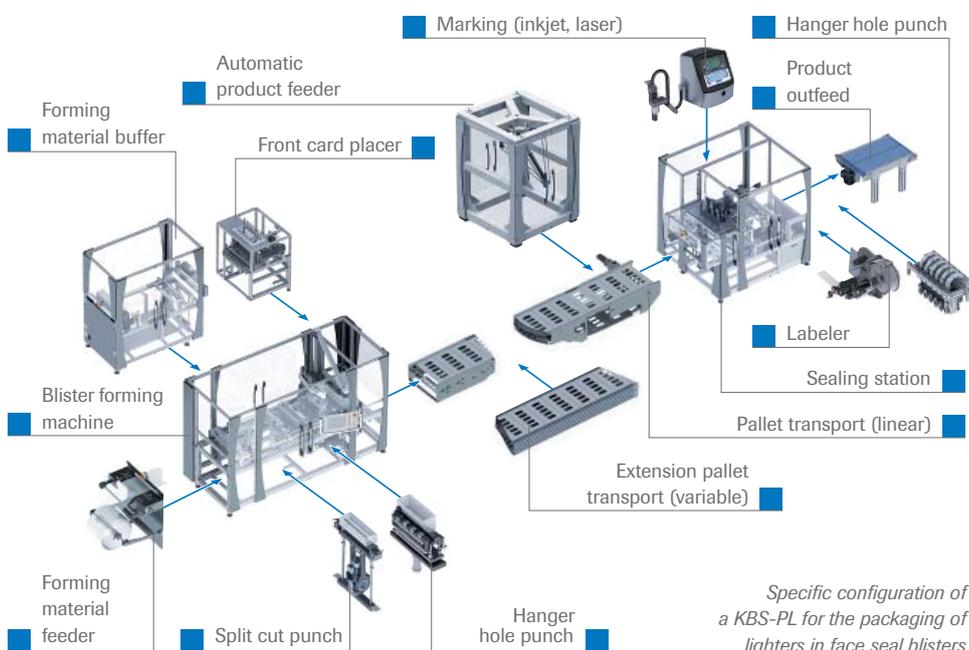
Trade-name adhesive tape in face seal card with hanger hole



Thermal sealing station of the Blister Machine KBS-PL

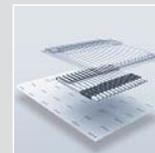
Integration and extension

To permit verified, documented reliability in accordance with international guidelines, the KBS-PL can be extended to incorporate systems for the inspection of blisters, products and cards. Furthermore, the modular, fully automated line concept of the KBS-PL allows the integration of additional components such as a punch, printing system or labeler. The addition or incorporation of a product feeder or suitable automated end-of-line packaging machines is another option for highly productive packaging tailored to the application.



Specific configuration of a KBS-PL for the packaging of lighters in face seal blisters

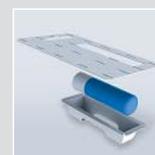
Blister types



Face seal blister



Trapped blister



Cardboard mono-material pack

Ideal packaging of diverse products, e.g.

- Batteries
- Homeware
- Stationery
- Office products
- Light bulbs
- Toothbrushes
- Air fresheners
- Toys
- Cosmetic products
- ...

Benefits of the KBS-PL

- Modular line concept with numerous integration and extension options
- Very high cycle rate
- Clear-cut, robust machine design
- State-of-the-art IPC control technology
- User-friendly operation with touchscreen



Simply access the KBS-PL video via smartphone

Functional reliability: for large formats and different forming materials

KOCH Blister Machine KBS-KF with chain conveyor



Standard model of the KBS-KF with lid material from the roll

Technical data KBS-KF

Forming area:

500 x 300 mm

300 x 300 mm

Forming depth:

70 mm

Sealing format:

500 x 300 mm

300 x 300 mm

Output [cycles/min.]:

30, depending on forming material, blister shape/size and sealing duration

Whether blisters made out of flexible film or eco-friendly, monomaterial PET with an inserted card; whether sealed as a clamshell or a blister with lid material from the roll to allow easy product removal and reclosure: the Blister Machine KBS-KF ensures high output for a wide variety of products. Furthermore, the stainless steel design complies with cleanroom standards for the packaging of medical products. The large forming and sealing format as well as a maximum forming depth of 70 mm permit the processing of bulky products as well as multipart sets. The sealing technology is selected in accordance with the respective material, e.g. PE, PET, PVC, PLA, Tyvek® or aluminum. The KBS-KF is fitted with a smooth-running, robust chain conveyor, which ensures reliable, accurate product transfer from station to station as well as maximum machine uptime.



Chain transport of the Blister Machine KBS-KF with a punch station for standard hanger holes

Benefits of the KBS-KF

- Very high cycle rate
- Processing of all standard types of forming material
- Robust chain conveyor for maximum machine uptime
- Low-cost format parts, no pallets or tool carriers required
- Fast format changeovers
- State-of-the-art IPC control technology
- Servo-regulated drives ensure smooth running

Soap dish with dowel packaged in a blister with lid material from the roll



Blister types



Face seal blister



Blister with lid material from roll

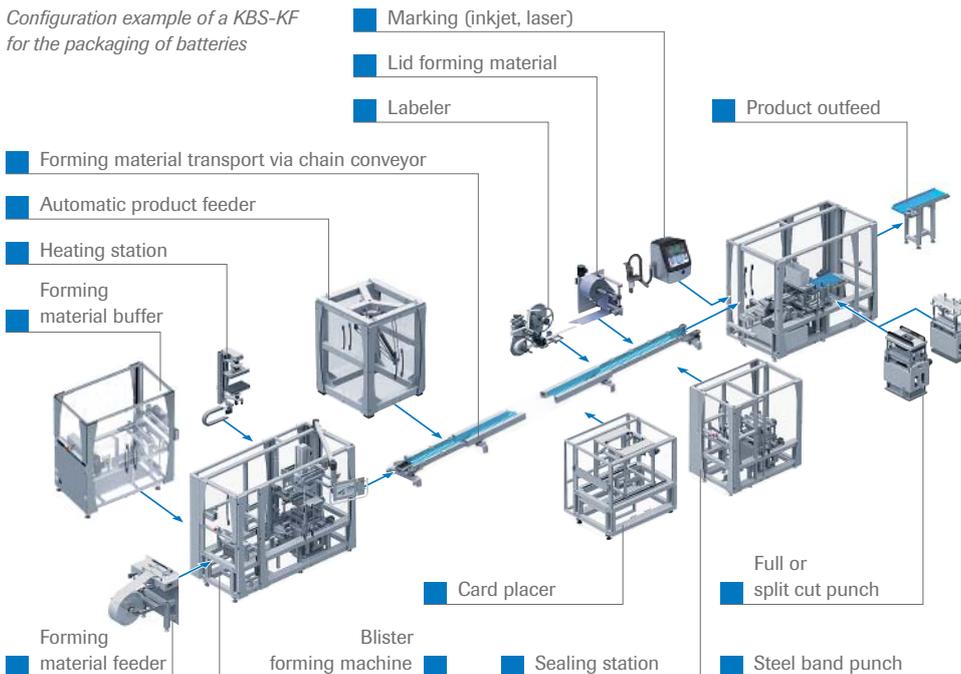


Blister to blister

Integration and extension

The basic model of the KBS-KF for the forming, filling and sealing of blisters can be extended with additional components such as product feeders, full punches and end-of-line packaging machines as well as monitoring and marking systems. To ensure 100-percent quality control and compliance with specifications governing the safety of pharmaceutical and medical products, the KBS-KF can be fitted with inspection systems at all relevant positions of the packaging process. Furthermore, a suitable printing system can be incorporated if required for unique identification purposes in compliance with current seamless tracking and tracing regulations.

Configuration example of a KBS-KF for the packaging of batteries



Ideal packaging of diverse products, e.g.

- Medical products
- Batteries
- Toothbrushes
- Light bulbs
- Cosmetic products
- Tools
- Electrical appliances
- Razors
- Stationery
- ...



Simply access the KBS-KF video via smartphone

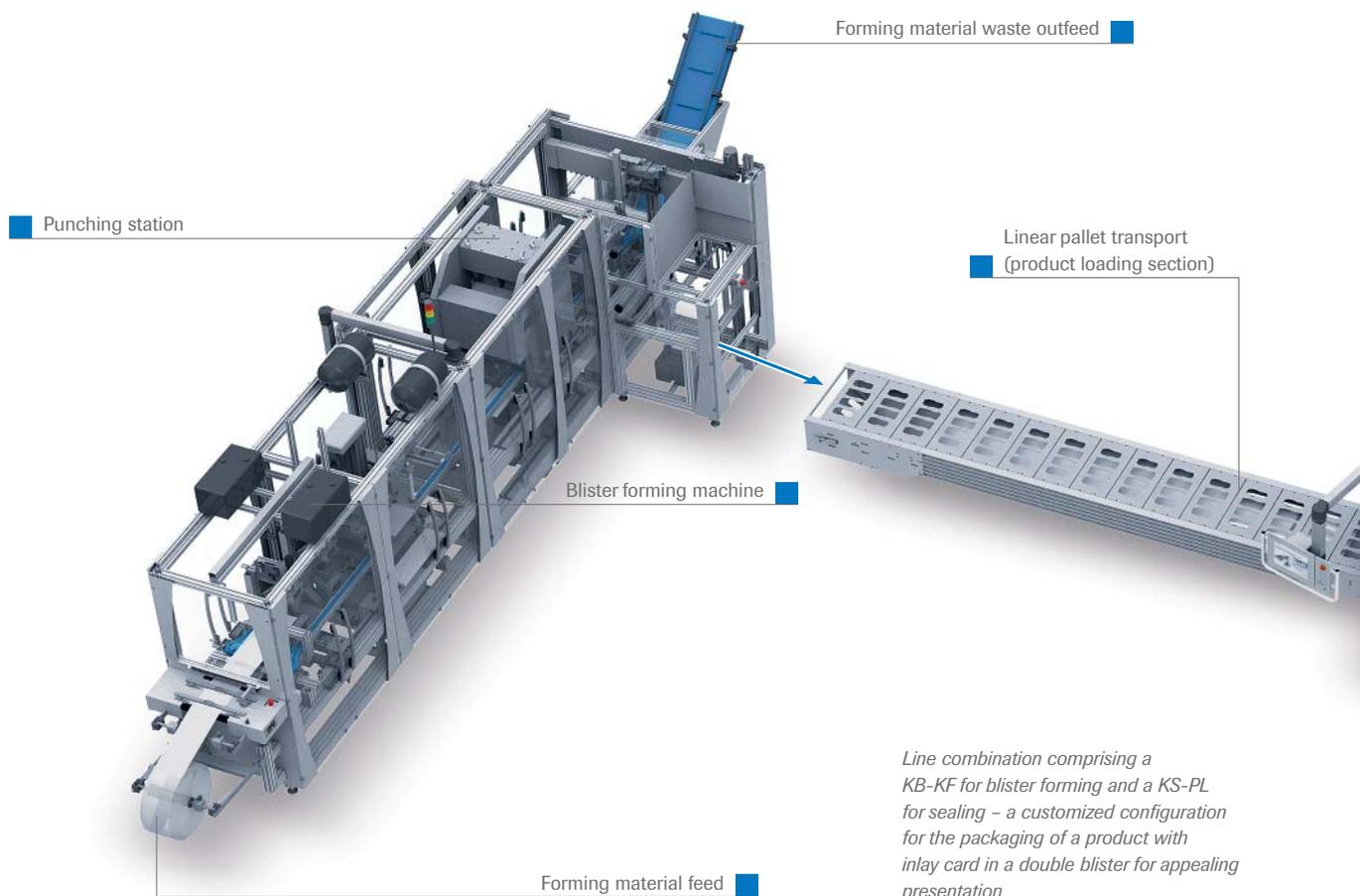
The ideal solution for each respective product: with standardized packaging quality

Customized machine and line configurations

It is your specifications and your budget that define the ideal packaging process: choose between forming and sealing combined in one machine, forming and sealing in two process steps on two machines, manual blister filling or the use of a handling system, the secondary packaging of the finished blisters or filling into shipping cases. All the options are realized with customized machine configurations comprising standard machines, complex special solutions or a KOCH packagingLine. The result always meets the exacting demands of packaging and handling.

Combination example: KB-KF plus KS-PL

An excellent example of the practically endless combination and application options offered by the modular concept of our machines is the customized line configuration for the packaging of a bulky cosmetic product with a card in a double blister (blister-to-blister).





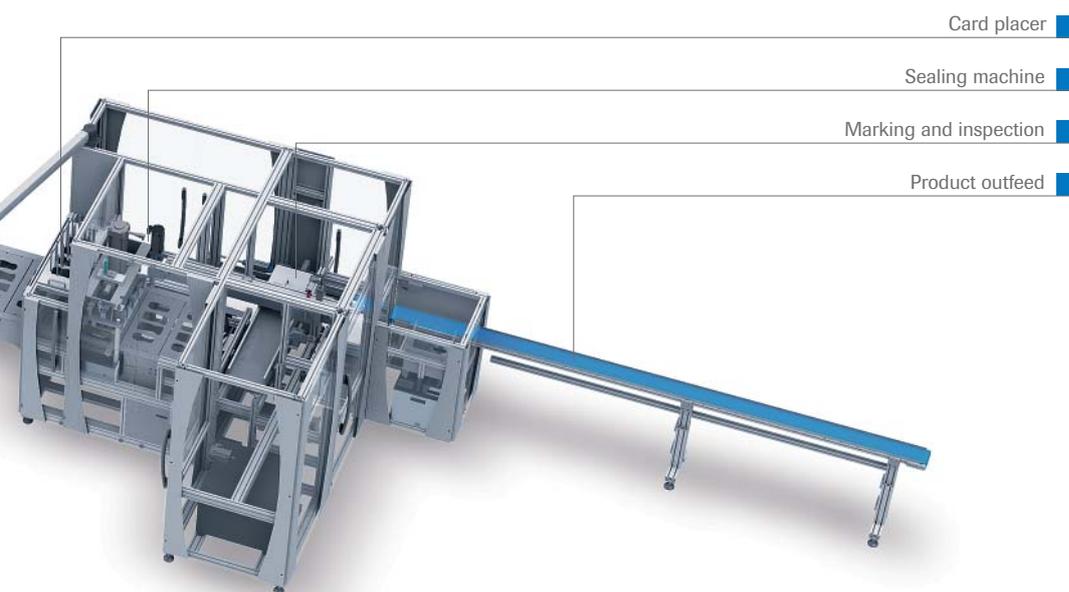
Blister forming station of the Blister Machine KBS-KF

A KB-KF is used to form the two blister halves. Operating at a high cycle rate, this is capable of consistent, high-quality processing of all standard types of forming material. Downstream of the forming process follows the punching of the blister in the punching station and then automatic feeding of the card inlay into one blister half, manual insertion of the product, and fitting of the second blister half, likewise by hand. The blister halves are then sealed together, punched with a hanger hole and an adhesive label is applied – a complete inline packaging process.



Razor in a blister-to-blister pack processed by the described machine combination

For an integrated, fully automated, end-to-end packaging process, the described line can be extended by a Delta Robot KRH-D for accurate pick-and-place handling of the products, by a blister grouping module and an end-of-line packaging system. Step by step integration is possible at all times – resulting in an entire KOCH packagingLine.



Blister types



Blister to blister



Clamshell

Ideal packaging of diverse products, e.g.

- Medical products
- Batteries
- Toothbrushes
- Light bulbs
- Cosmetic products
- Tools
- Electrical appliances
- Razors
- Stationery
- ...



Visit the KOCH Pac-Systeme YouTube channel and see innovative packaging technology in action: www.youtube.com/kochpacsysteme

The trade name for highly flexible, integrated, end-to-end packaging

KOCH packagingLine - also available in the medplus version

Standardization as far as possible and customization as required was the objective when developing the KOCH packagingLine. The outcome is a highly automated packaging line solution that efficiently meets performance and flexibility requirements. The outstanding concept enables the line to package small as well as large-format products ranging from a single coin cell to multipart toys. The combined, universal packaging of different shaped packs is also possible. This optimizes storage and logistics processes and makes handling easier for the retail or intermediary trade.



2
Handling
card inlay



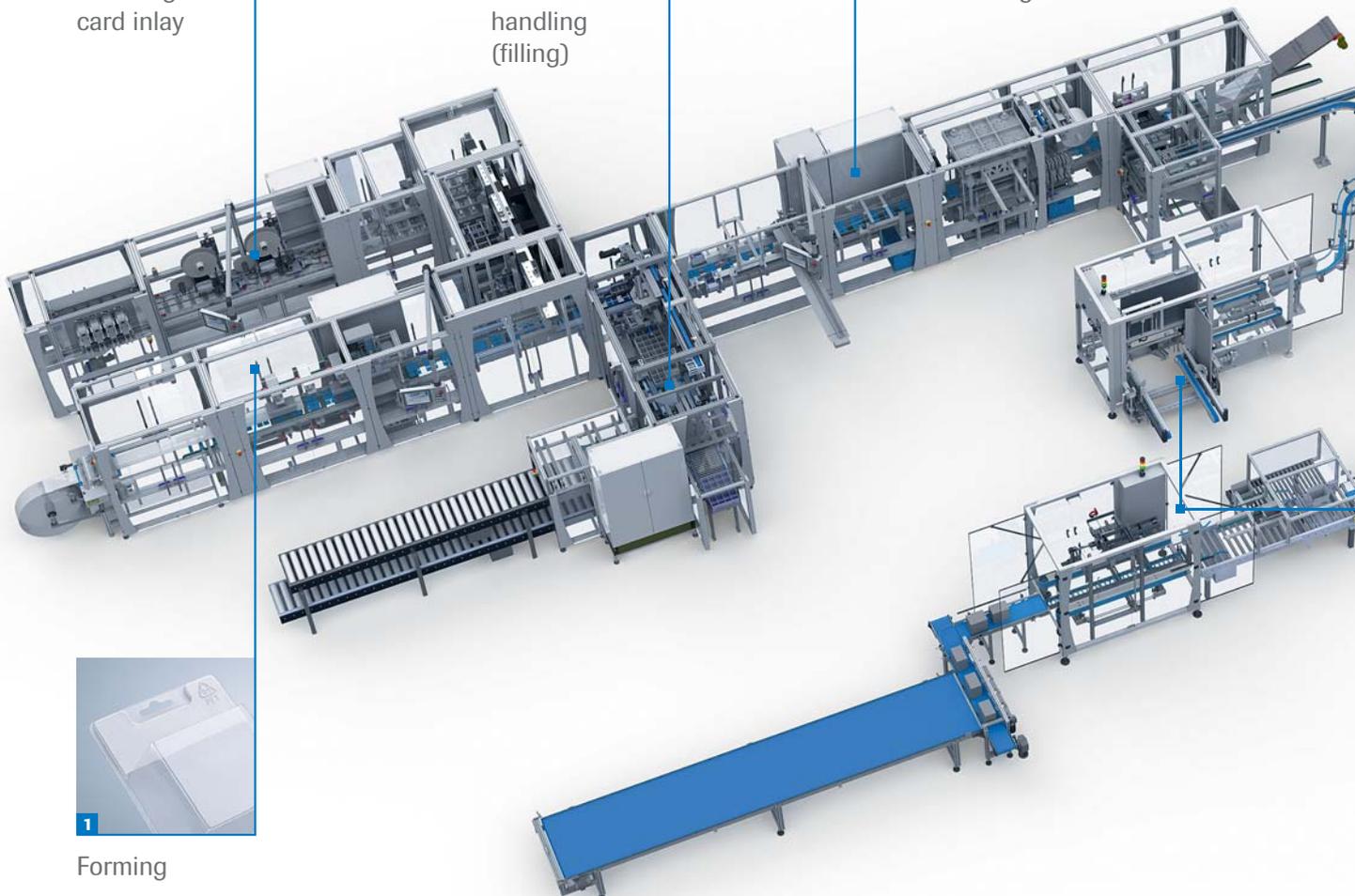
3
Product
handling
(filling)



4
Sealing



1
Forming

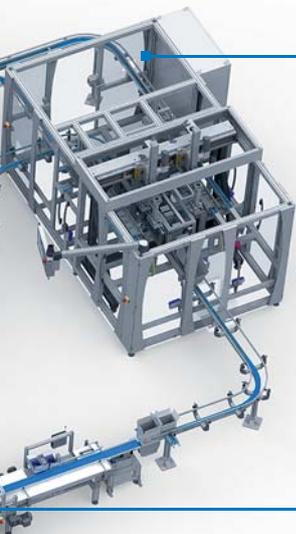


The basic configuration of every KOCH packagingLine comprises four components – a blister machine, a product feeder, a blister grouping module and end-of-line packaging – which are optimally coordinated and perfectly synchronized in terms of performance. Depending on the application, these are supplemented by marking, inspection and handling systems. An end-to-end control concept for all components means that the entire line can be operated by just one person. Fast and straightforward format changeovers ensure maximum machine uptime.



5

Grouping



6

End-of-line packaging



Simply access the KOCH packagingLine video via smartphone

Line competence

- Packaging with optimum protection and an appealing design
- Product handling concept according to individual specifications – with seamless integration into the production process
- Space-saving grouping and further processing of the finished blisters
- Feeding, erecting, filling and closing of cartons
- End-of-line packaging in display trays suitable for transport or on pallets: user-friendly and flexible



Guaranteed process quality – from a single source

However, a KOCH packagingLine is more than a coherent sequence of machines and components. In every case, the most cost-efficient packaging line is the tangible result of a process to which we apply our extensive know-how at all stages: concept and feasibility studies are as equally important as assistance in developing the pack design and the integration of aggregates or machines from other manufacturers.

As your partner, we assume responsibility for the entire project and offer a turnkey service from a single source. Included are documentation, validation and all support services that guarantee the smooth operation of your KOCH packagingLine: for maximum long-term productivity for every application.

Exactly what is needed: for an optimized packaging process

Automated feeding, inspection, marking

Benefits and data of the KPM-200

Fast and easy format adjustment –
no changing of format parts

State-of-the-art IPC control technology
and user-friendly touchscreen operation

Format:

Min. [L x B] 60 x 60 mm

Max. [L x B] 200 x 400 mm

Transport speed:

Up to 52 m/min., depending on marking system

Output :

200 products/min. with standard 260 mm pitch

Integrated as required

Thermal inkjet printing system

Continuous inkjet printing system

Thermal transfer systems

Laser marking systems

Labeler with/without marking system

Drop-on-demand marking systems

Braille marking systems

In addition to our machines that form, fill and seal as well as for grouping and end-of-line packaging, our portfolio includes additional components which help to make your packaging process more efficient and reliable. These include the automated, hygienic pick-and-place robot, inspection systems for product control and verification of information relevant to validation, and highly flexible printing systems suited to the specifications and the materials to be marked.

Offline or inline: perfect quality marking

For the unique, clearly recognizable and seamless inline identification of cartons, card or film blanks or blister cards in compliance with prevailing tracking and tracing legislation, we select the appropriate printing system and integrate it into the blister machine. Information relevant to validation is applied in the appropriate quality in the form of a batch number and a bar code or data matrix code incorporating manufacturing data of the packaging process as well as details of the product. Alternatively, the KOCH Print Machine KPM-200 offers an efficient offline solution. This GMP-compliant machine of table-top design can be extended by a product positioning and grouping system at the product discharge conveyor and can be incorporated into a SCADA and/or ERP systems.



*Print Machine
KPM-200 for the
flexible offline
marking of different
materials with
serialization data
as well as other
information*



Example of a printing and camera system that marks and subsequently verifies variable product data

Checked and verified: inspection modules

One hundred percent quality control during the ongoing process with maximum precision at high speeds: we provide a selection of contact-free camera inspection systems at relevant stages of the packaging process. These include the monitoring of product presence or position during robot feeding, the verification of product data and print images during marking, or final inspection of the finished packs. The acquired data is transferred to the machine control system or to the next station of the process – for end-to-end reliability during packaging of the products.

Reliable monitoring

- Quality and integrity of the pack contents
- Positioning and printing of the label
- Presence and readability of variable product data (OCV, OCR) such as bar code, data matrix code, etc.
- Optical packaging quality
- Individual packaging specifications

Highly productive and variable: KOCH robot handling system

The Delta Robot KRH-D picks up pre-packaged or loose products without any manual assistance and places them safely and accurately at high speed in the preformed blisters. Use can be made of a single, lightweight carbon-fiber reinforced plastic robot, or several KRH-D robots can be operated and integrated into the KOCH machine control system. Tool-free format changeovers are quick and easy, and operation is via the standard, intuitive KOCH user interface.



Pick-and-place handling ensures maximum servo-regulated precision

Delta Robot KRH-D

- Full integration into KOCH packaging machines
- High-speed pick-and-place function
- Multi-axis systems
- Different sizes and scopes of work

Different experts, one promise: professional support at any time, anywhere

Comprehensive support services for smooth operation



*Tested and approved:
original tools provide
plug-and-play reliability*

Coherent planning, perfect installation and punctual start of operation of your customized packaging machine or line are one side of the coin. The other side offers assistance from the KOCH Customer Support & Services division for smooth, efficient operation far into the future.

An essential aspect of the process is personal support through a service team well aware of what is important for you: high machine availability for maximum productivity. Your contact person has competent answers to your questions at all times and organizes the prompt supply of tools and format or spare parts in original quality. Our online service is available for the quick diagnosis of problems and can provide active support via a machine modem or secure internet connection to correct the matter.

Customer Support & Services

Prompt assistance via online support or service hotline +49 7445 181-181

Tools, format and spare parts in original quality

Individual service agreements for inspection and maintenance

Basic and customized training programs for all employees involved in the packaging process

Improved machine availability through process analysis, output optimization, machine upgrades and production support

Validation and qualification documentation (DQ, IQ and OQ) in compliance with the latest GMP guidelines

Key elements for productive packaging

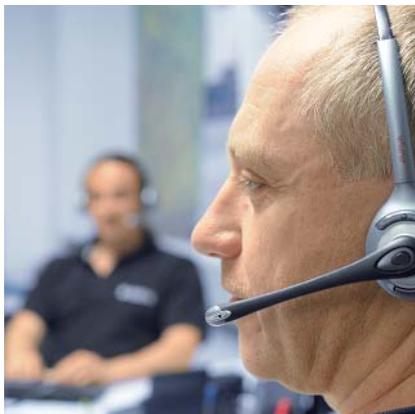
Our Customer Support & Services division attaches vital importance to machine uptime. Services in this respect include regular inspection and maintenance of your packaging machines and lines in the context of a tailored service agreement as well as machine upgrades for adaptation to the latest technical standards and regulatory legislation – for greater efficiency and reliability. Furthermore, if required, we can analyze your production process, identify improvement potential and tap into this through output optimization measures.

Another central issue is the qualification and validation of all machines and supplied components. Our experts test machines, tools, format parts and upgrades and issue the respectively required documentation. As far as manpower is concerned, you can count on us in two respects. Firstly, we can provide experienced packaging technicians to help you overcome temporary personnel shortages. Secondly, we offer tailored training programs for operators, setters, administrators, technicians and managerial staff to ensure reliable, productive operation of your particular machine models and configurations. In other words, we do everything in our capacity to ensure that you achieve maximum productivity and maintain this in the long term.



Personal, professional support over the entire life cycle of a machine

Tailored training either held at KOCH's premises or on site on the production machines and lines



Fast and competent assistance: the service hotline

KOCH Pac-Systeme: your reliable partner beyond today, anywhere in the world

Medium-sized company geared to international business

Great importance is attached to close customer contact during all stages of a project – in the interest of the ideal packaging solution



KOCH Pac-Systeme is synonymous with forward-looking, customized packaging solutions for top quality and maximum efficiency. We have been catering to the needs of our customers with quality products and services for over four decades. While recording sound growth, we remain faithful to the characteristic assets of a medium-sized company: a high level of flexibility in response to different requirements, short communication channels, and personal contact.

Linchpin when it comes to developing, planning and building customized machines and lines are the people who work for KOCH: over 230 qualified members of staff, many trained internally, cover all technical fields. They contribute on a daily basis to the top quality of our packaging machines through their innovative ideas and strong commitment, pass on their know-how to the next generation, and ensure that we continue to be a reliable partner for you in the future.



For latest information
please visit us at
www.koch-pac-systeme.com



The ideal basis for excellent quality: state-of-the-art manufacturing structures and well-qualified employees



The company headquarters in Pfalzgrafenweiler – production site for forward-looking packaging technology



Personal contacts – wherever you may be

Our understanding of customer care is truly representative of a medium-sized company: a personal contact is in your vicinity. In addition to our headquarters in Pfalzgrafenweiler, we have offices in France, China and the USA. Furthermore, we have international sales partners throughout the world. And – when it comes to pharmaceutical packaging – we can make use of the all-round expertise of Uhlmann Pac-Systeme.

Global presence

Detailed advice at the preliminary stage, professional support during ongoing operation

Headquarters and manufacturing facilities in Pfalzgrafenweiler, Germany

Offices in France, China and the USA; international sales partners

Integration into the international sales network of Uhlmann Pac-Systeme GmbH & Co. KG



■ Packaging Competence and Automation

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