

**Mechatronics • Automation • Robotics**  
**INNOVATION & KNOW-HOW**



# THE COMPANY



Since it was founded in 2002, DESSL MASCHINENBAU GMBH from Stans in Tyrol has established itself on the market as a full-service provider with a focus on mechatronics, automation and robotics.

The now more than 40 employees take care of your individual needs as a customer and solve tasks in a target-oriented manner through innovative ideas and new developments.

Further education and training courses tailored to our employees make it possible to equip our products with the latest technologies and to guarantee consistent quality.

DESSL MASCHINENBAU develops production machines designed to your needs, from simple conveyor belts to complex systems.

All parts and systems are designed and manufactured according to customer specifications. The materials are carefully selected to your applications. The selection is made according to the applicable regulations and standards (FDA, etc.), especially for the pharmaceutical sector and clean room requirements.

Robots and PLC controls are programmed in-house to ensure the greatest possible flexibility and the best customer service. We offer everything from installation and commissioning to employee training for our systems - everything according to customer requirements.

We also retrofit your older, existing systems. We manufacture system- and product-specific parts and assemblies so that existing production processes can be optimized and adapted.

We hope you can get a first, small insight with this brochure. We would be happy to support you with your projects and to be able to add you to our satisfied customer base.

Your Dessel Maschinenbau Team





## OPTIMAL SOLUTIONS IN ENGINEERING

For around 20 years, we have been offering our customers from various industries customized products and services in the high-tech area.

It is our primary goal to offer optimized solutions for the respective requirements in close cooperation with our partners and customers. Our cross-industry experience and continuous employee training ensure innovation and new solutions.



### PHARMA

Precision, easy cleaning and the right choice of materials are particularly important in the pharmaceutical sector. Strict guidelines require clean solutions. Be it the transport, the portioning or the packaging of products.



### FOOD

System flexibility is the primary focus when developing production systems for use in the food industry. It's about rapid change between production parameters, portioning the food, restructuring product lines and especially about hygiene requirements.



### INDUSTRY

In modern industrial production, flexible solutions are required to meet the needs of modern material processing and personnel development. We offer customized solutions for unique requirements.



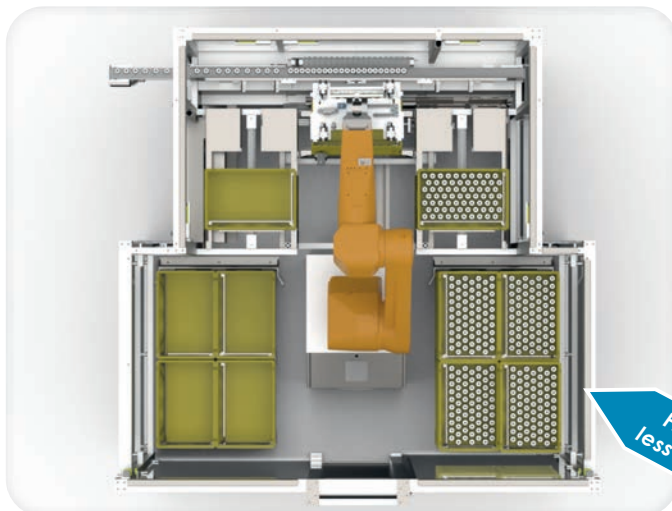
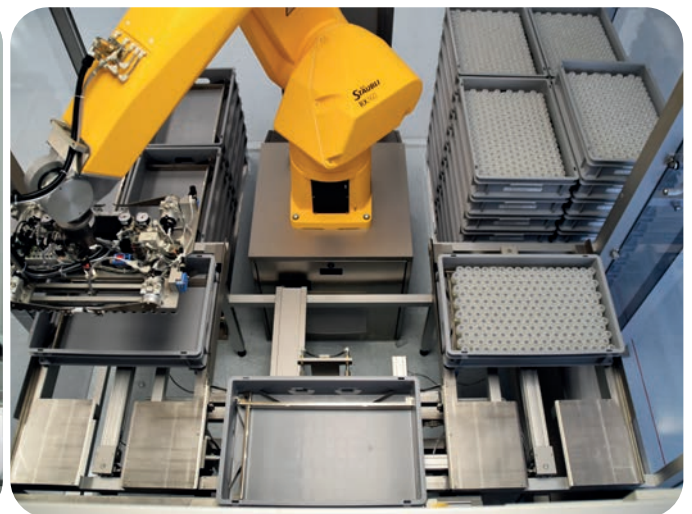
# DESSL COLLECTOR

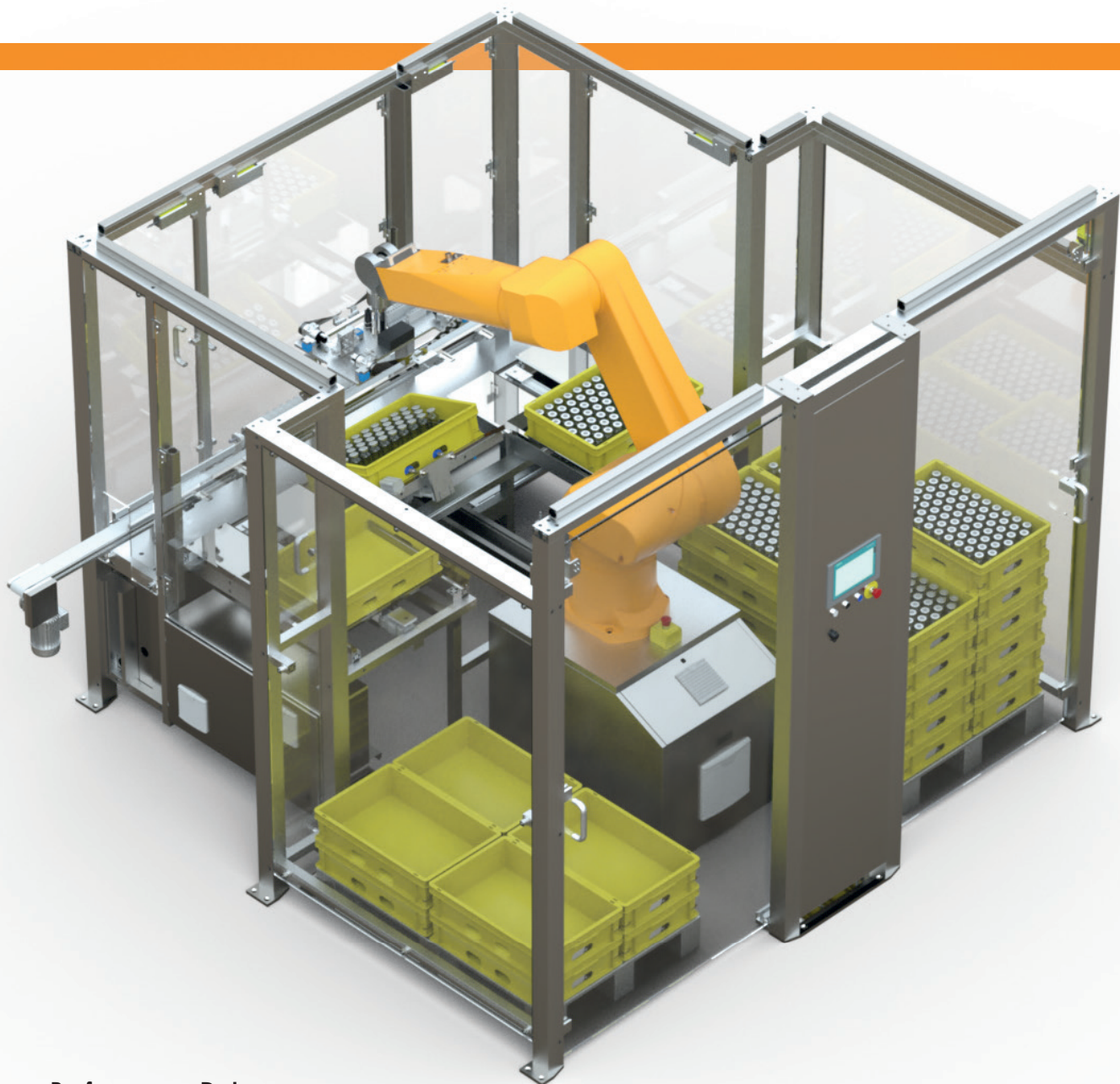
## THE SOLUTION FOR INTERMEDIATE STORAGE OF VIALS IN STACKABLE PLASTIC BOXES. PRODUCTION INCREASES OF 20% WITH THE DESSL COLLECTOR.

- Cleaning cycles in the clean room differ from those of the packaging.
- Filling and packaging have different quantity outputs.
- In addition, there is the need to store production batches in stability intermediate storage until they are released by quality assurance.
- The traceability of batches in the various production stages is becoming more important, which is why the Collector can also be expanded to include Track & Trace functionality.

### Der Dessl Collector optimizes:

- fully automated loading and unloading of stackable containers on pallets
- utilization of production capacities in the clean room
- efficiency in the production steps after filling
- separation of the primary packaging from the secondary packaging. This avoids mixing up products in the production areas
- the bundling of small quantities (stability batches, research, studies, sales) into one production quantity
- Patented storage boxes with clamping bars prevent the containers from tipping over, absorb bumps during transport and secure their position. This means that lines on different floors and buildings can also be connected. The boxes are stored on Euro pallets.



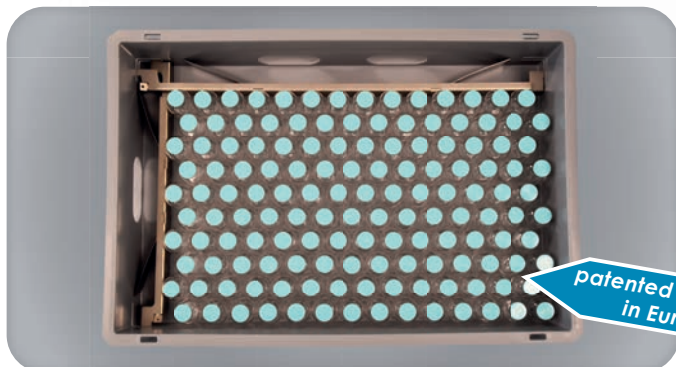


#### Performance Data:

- depending on the container size, up to 24,000 vials per hour
- storage capacity in the system / time 1 cycle = 1 pallet.

#### Examples:

- 50H vial: 1 pallet = 5,184 pieces      36 min until pallet change
- 6H vial: 1 pallet = 22,800 pieces      70 min until pallet change



patented storage boxes  
in Euro-format

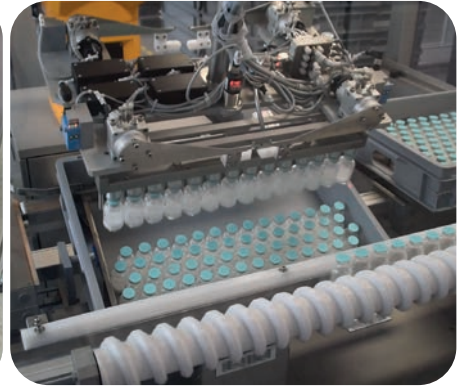
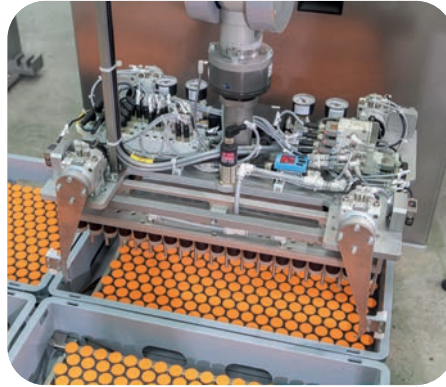
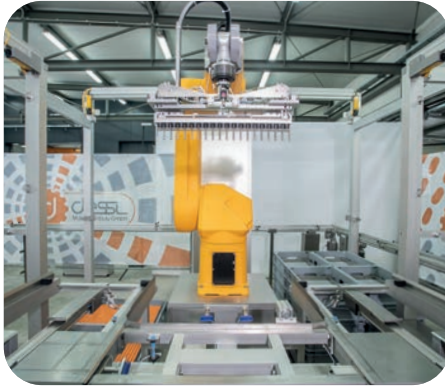




# DESSL COLLECTOR

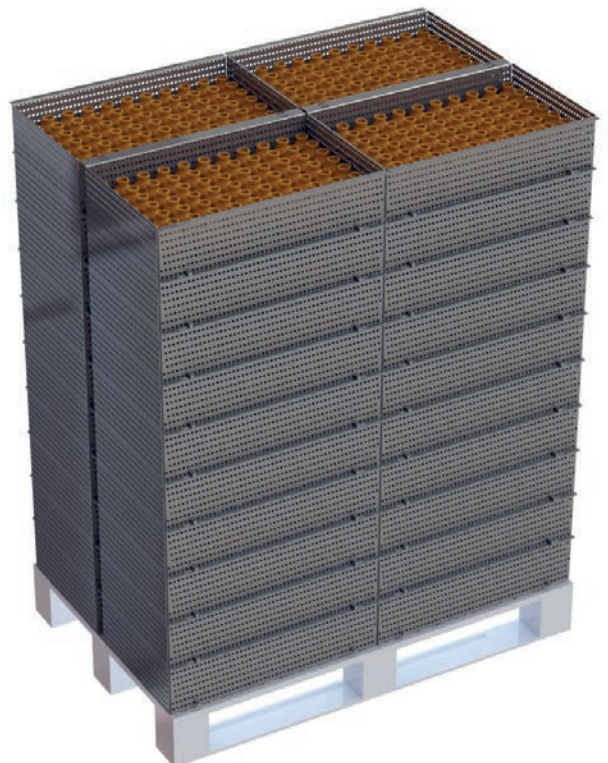
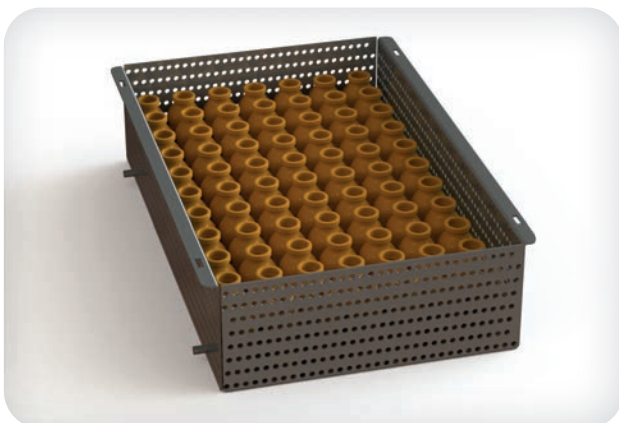
## Operation:

- simple format change within max. 10 minutes by a trainee
- formats are selected on a control panel via „Recipes“
- loading and unloading with the same system
- product identification with camera/print station - optional
- required floor space only 2.95 m × 2.95 m



## AUTOCLAV-LOADING

Autoclaving of containers can also be automated with the Dessl Collector. Here we have developed stackable stainless steel containers that can be brought into the autoclave with a pallet or a mobile underframe. We can map the number of vials per layer and the distance between the layers according to the existing process.



## PRINT & CONTROL STATION

Enables printing of vials with codes or numbers while the process is running and read out via a camera system.

- reliable positioning by means of a transport star
- vials are fixed with suction cups when printed
- defective or illegible vials are automatically diverted to an ejection belt
- 2 ejection belts
- Different printing systems can be used, for example, inkjet with invisible UV fluorescent ink
- double checking of the printing is possible



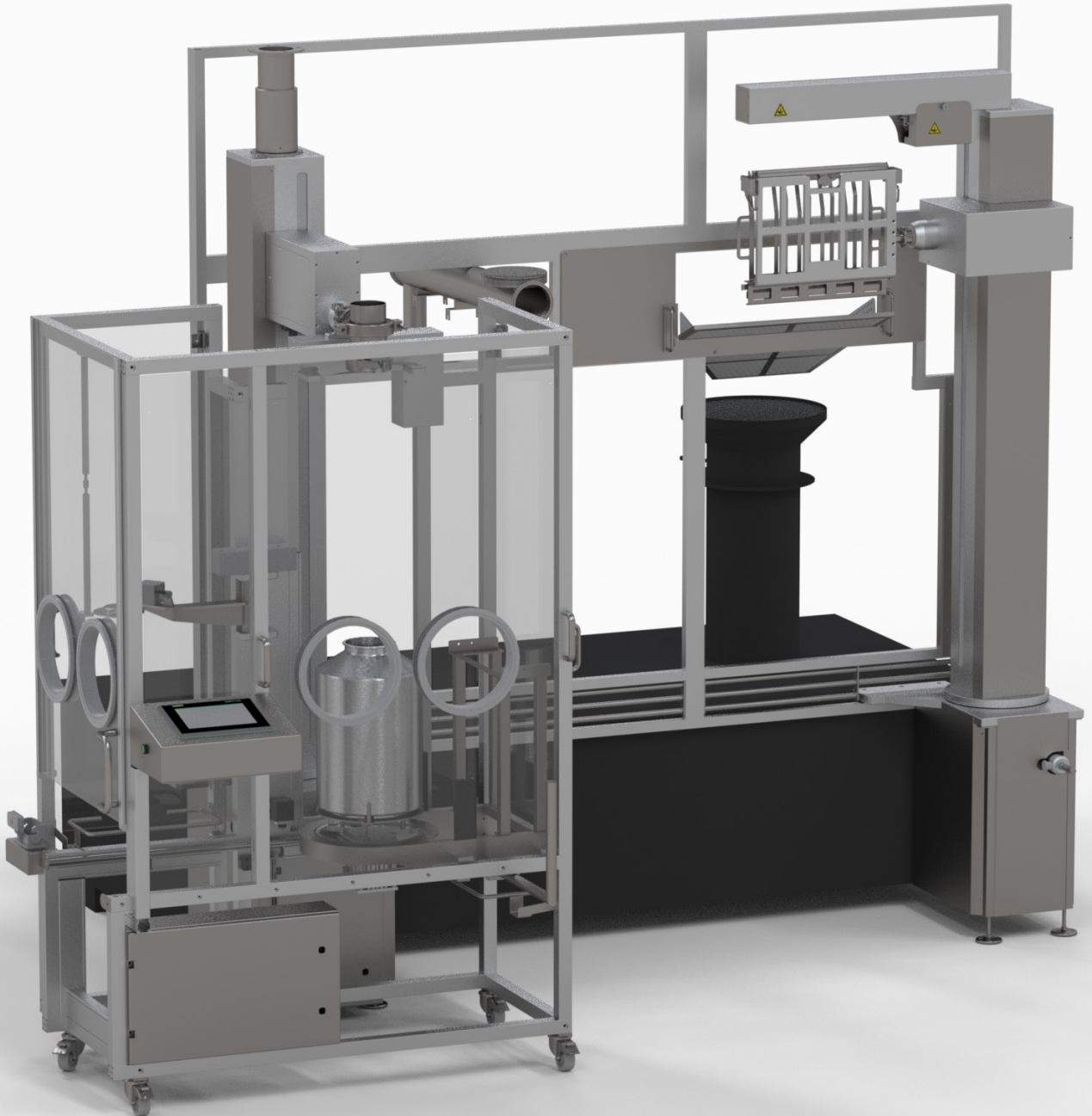
flexible configuration of the  
printing and testing system





# CAN/STOPPER LIFT WITH CAN TROLLEY FOR STERILE FILLING

Sterile loading of powder cans/pots and vial stoppers on filling systems



specially developed  
valve system



## CAN/STOPPER LIFT

The system enables sterilized powder cans and stoppers to be fed to the downstream filling system for vials in a controlled process at two separate stations.

This reduces the risk of contamination to a minimum.

The powder is filled from sterile cans via a special valve so that powder losses can be avoided.

A specially developed can trolley is available for transporting the sterilized cans from the autoclave to the filling system.

Stoppers for closing the vials are loaded via autoclaved packaging units in the form of plastic bags (TYVEK). The loading process is semi-automatic. The bags are opened and emptied without contact.

- sterile handling for powder cans and vial stoppers
- direct connection to the filling machine
- avoidance of powder losses
- semi-automatic powder feed
- semi-automatic stopper feed

## CAN TROLLEY

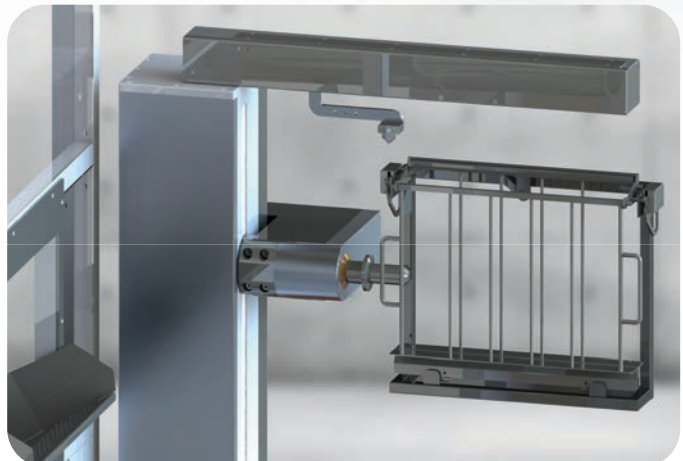
- Powder cans can be fed to the can Lift of the system using the device. After disinfection, the container can be loaded into the can Lift without contact.
- It is equipped with RABS gloves for handling inside the trolley.
- Thanks to the rollers, the cans can be easily transported over long distances and a special locking mechanism guarantees precise positioning on the can Lift.
- sterile handling of powder cans, easy transport



## HANDLING OF STOPPER BAGS

The stopper bag (TYVEK) is clamped into a stainless steel frame and autoclaved with the frame.

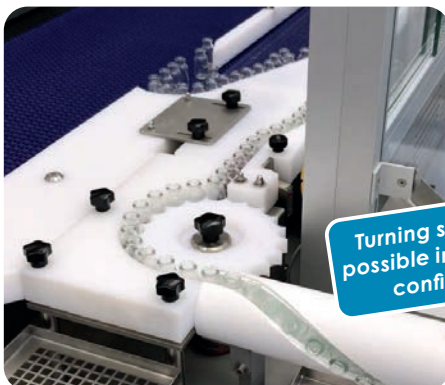
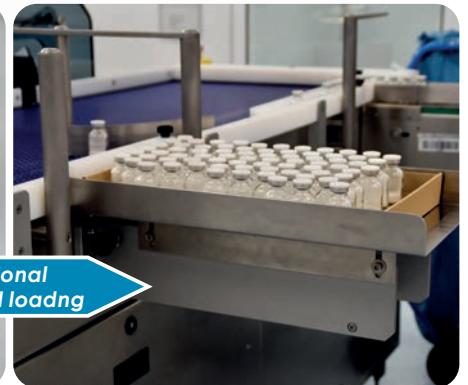
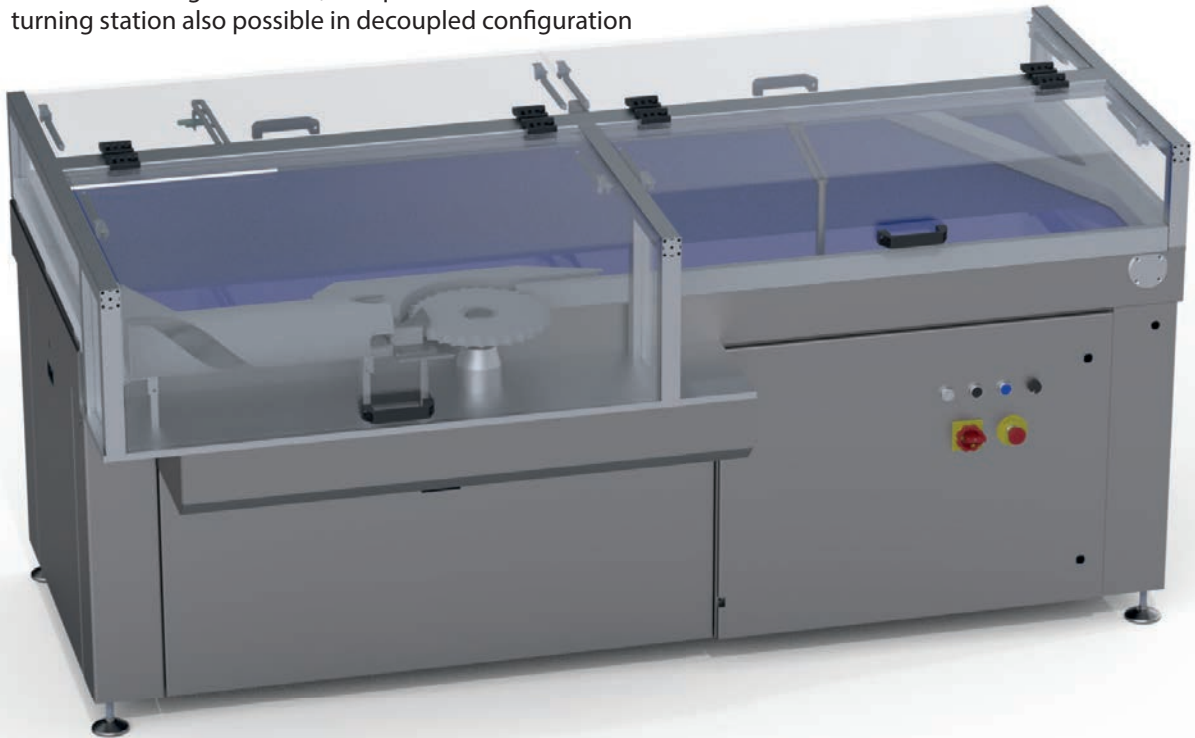
The autoclaved stainless steel frame with the TYVEK pack is placed in the Lift system, moved to the loading position, automatically opened and emptied into the system.



# BI-FLOW STOWAGE TABLE WITH/WITHOUT TURNING STATION

## Buffering and separation by contrarotating modular conveyor belts

- tailor-made adaptation to the production environment
- number of changes in the direction of transport individually according to customer requirements
- version with and without reversing spiral (360° around the horizontal axis)
- use of low-maintenance components
- easy format change
- additional function „media fill“ for validations
- optional manual task
- clean room design available, if required
- turning station also possible in decoupled configuration



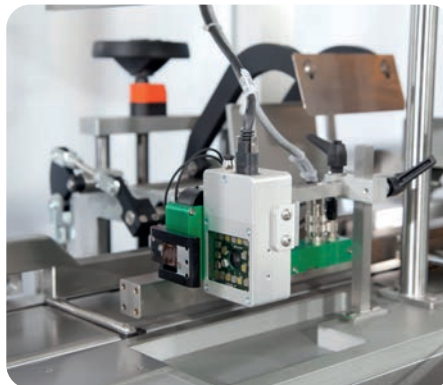
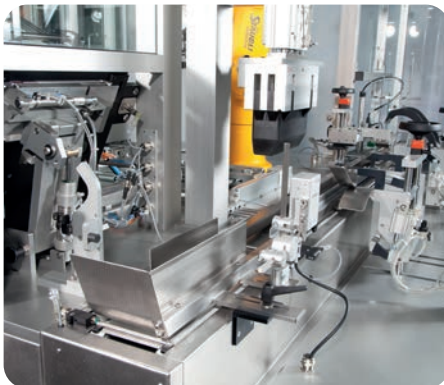
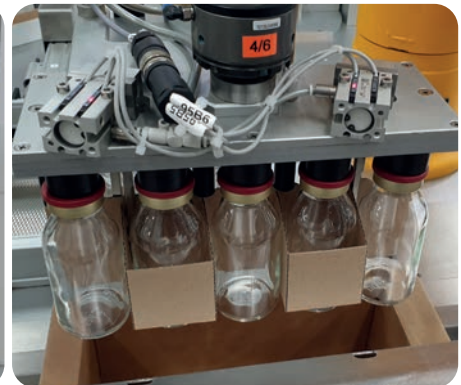


# PACKAGING SYSTEM FOR VIALS



The 6-axis robot enables flexible packaging solutions for vials including instruction leaflets in folding boxes with the option of adding an intermediate compartment.

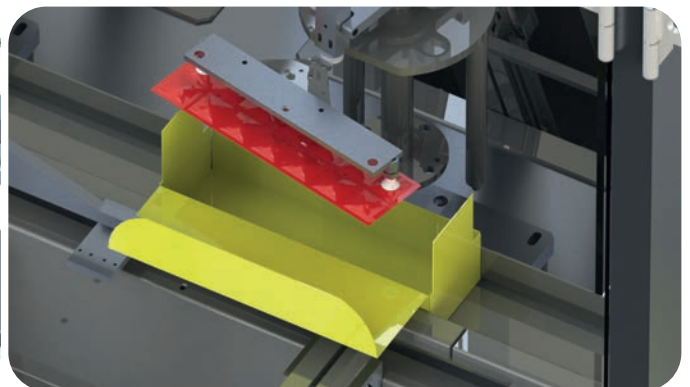
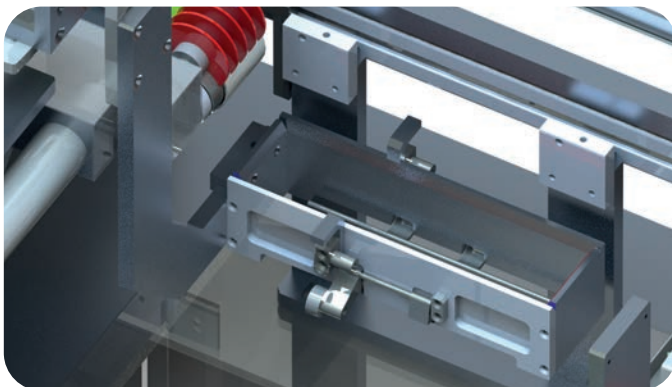
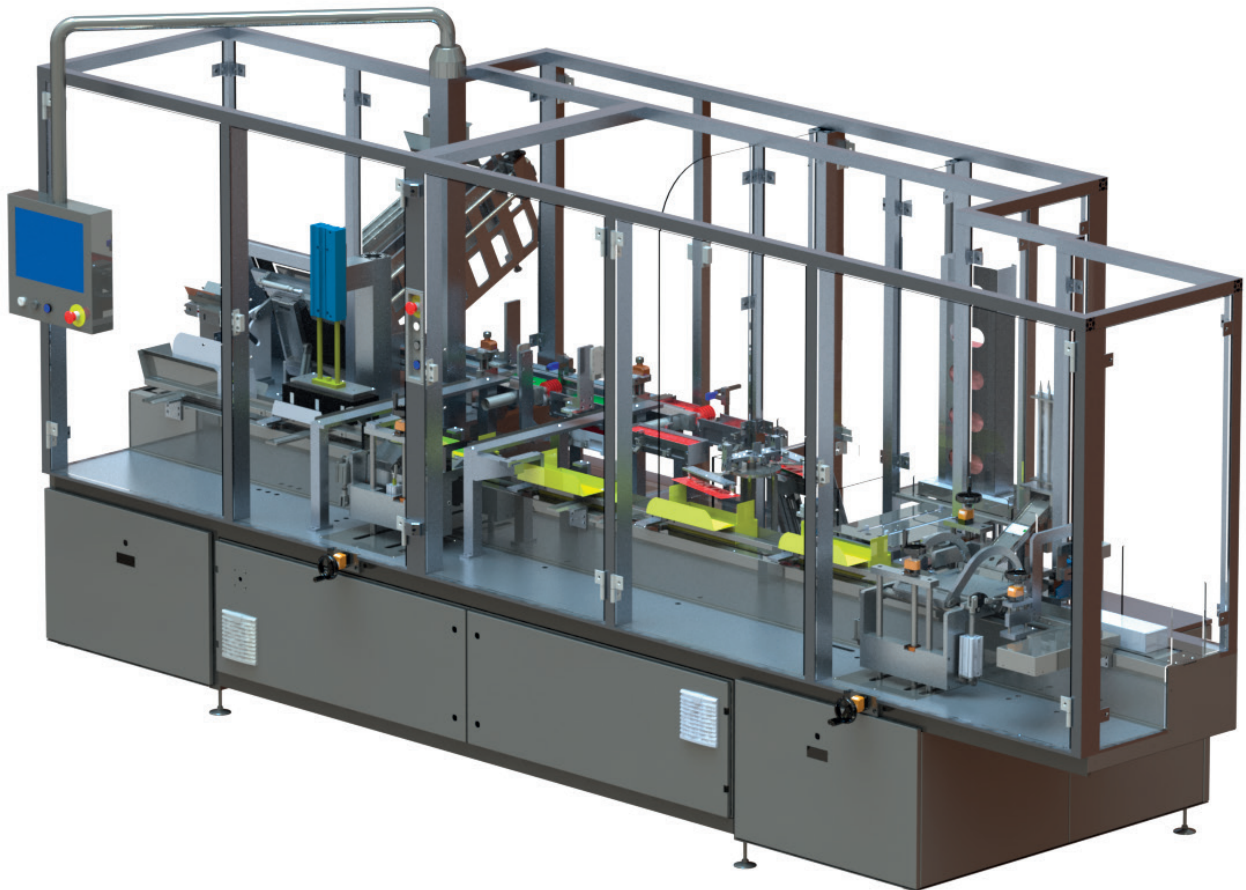
- minimal space requirement
- highest process and operating safety through self-developed, patented mechanisms
- easy operation and maintenance
- short changeover times (10 minutes)
- individual package sizes
- easy to clean, smooth surfaces
- open station for printing systems
- tamper-evident can be integrated
- automatic insertion of separation cardboards
- automatic insertion of leaflets
- checking the packaging parts and printing
- Track & Trace functions optional



# PACKAGING SYSTEM FOR STRIP PACKAGING

## Strip packaging in folding boxes

- strip packaging in folding boxes
- different systems for collecting and stacking the strips possible
- minimal space requirement
- highest process and operating safety through self-developed, patented mechanisms
- easy operation and maintenance
- short changeover times (10 minutes)
- individual package sizes
- easy to clean, smooth surfaces
- open station for printing systems
- tamper-evident can be integrated
- automatic insertion of leaflets
- checking the packaging parts and printing
- Track & Trace functions optional

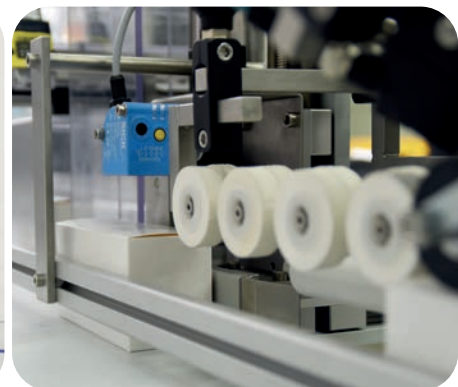
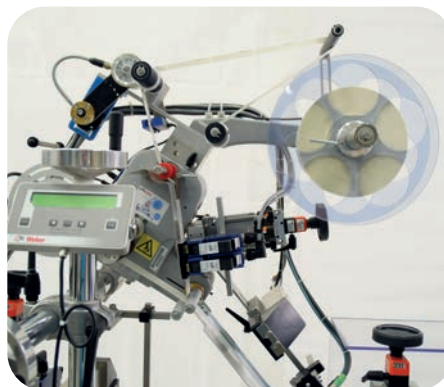
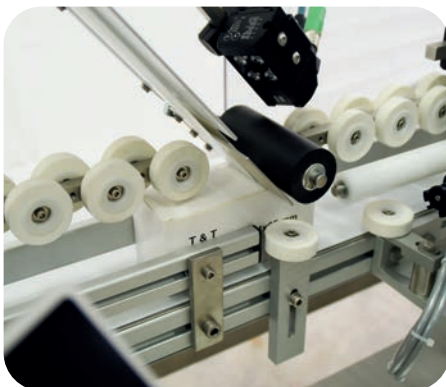
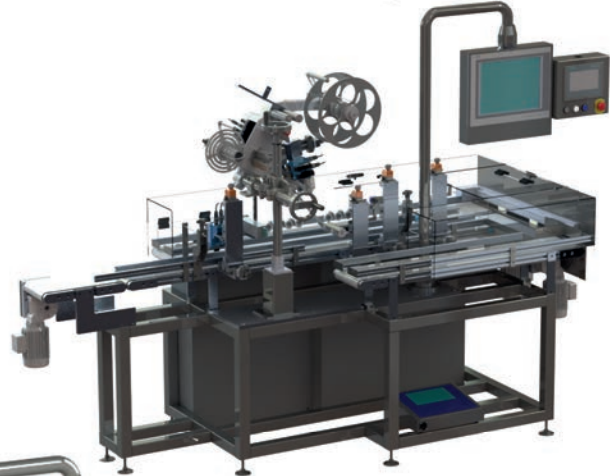




## Track & Trace with inkjet, labels and sealing

We achieve maximum variability using a basic system with our reliable serialization systems with Track & Trace connection. The arrangement of the conveyor system can be planned flexibly. Compact designs are also possible, thanks to sorting with electric or pneumatic linear slides.

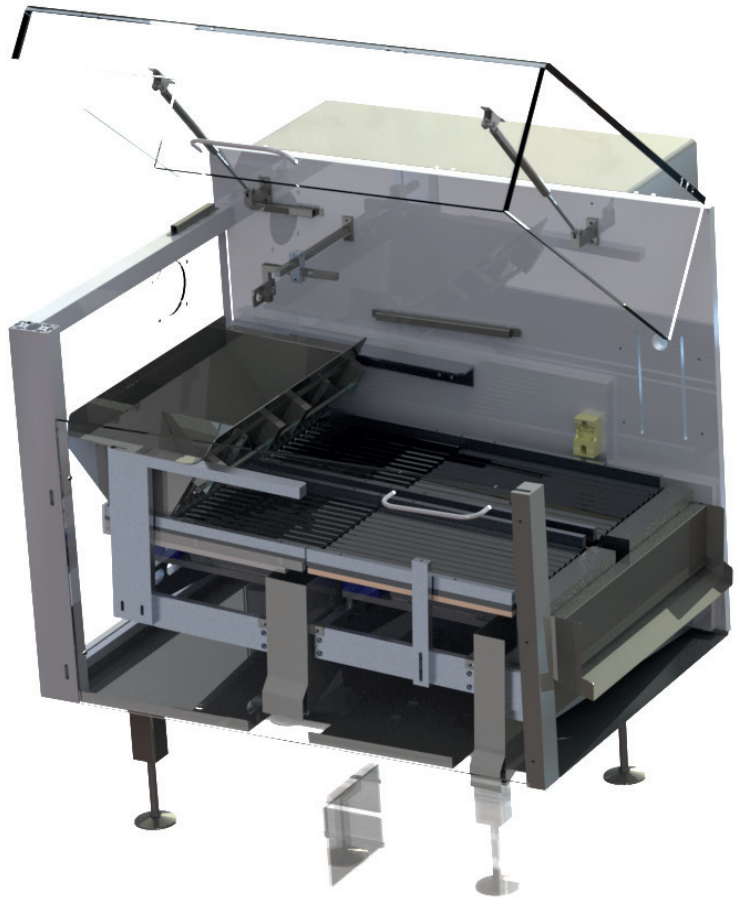
- accurate to size adaptation to the production environment
- lockable outlet for rejects
- codes and labels are checked after each action
- inkjet and label printing on the top and sides
- tamper-evident can be integrated
- ideal for serialization
- automatic sealing of the packaging units
- easy operation via touch panel



# TABLET BREAKAGE CONTROL

## Fully automated control of product quality

- tablets and capsules can be processed
- check for integrity of tablets and capsules
- production quantity up to 10,000 pieces/min
- removal of fragments
- compact design
- any number of lanes



Example:  
2,000 pieces per minute



# LIFT SYSTEM FOR TABLETS AND GRANULATES

## Cup transport to overcome level differences

- flexible number of transport cups
- flexible size of cups
- compact design
- construction height according to your needs
- easy cleaning thanks to smooth surfaces
- variant for granulates and powders available
- optional combination with tablet breakage control

Example: Lift and  
tablet breakage control  
up to 10,000 pcs/min

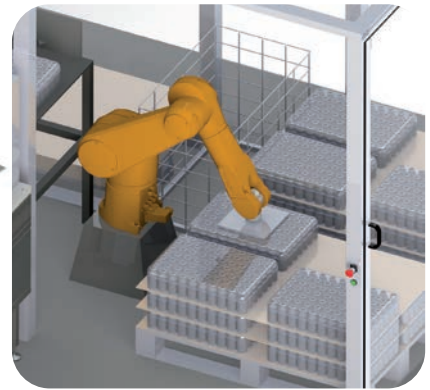
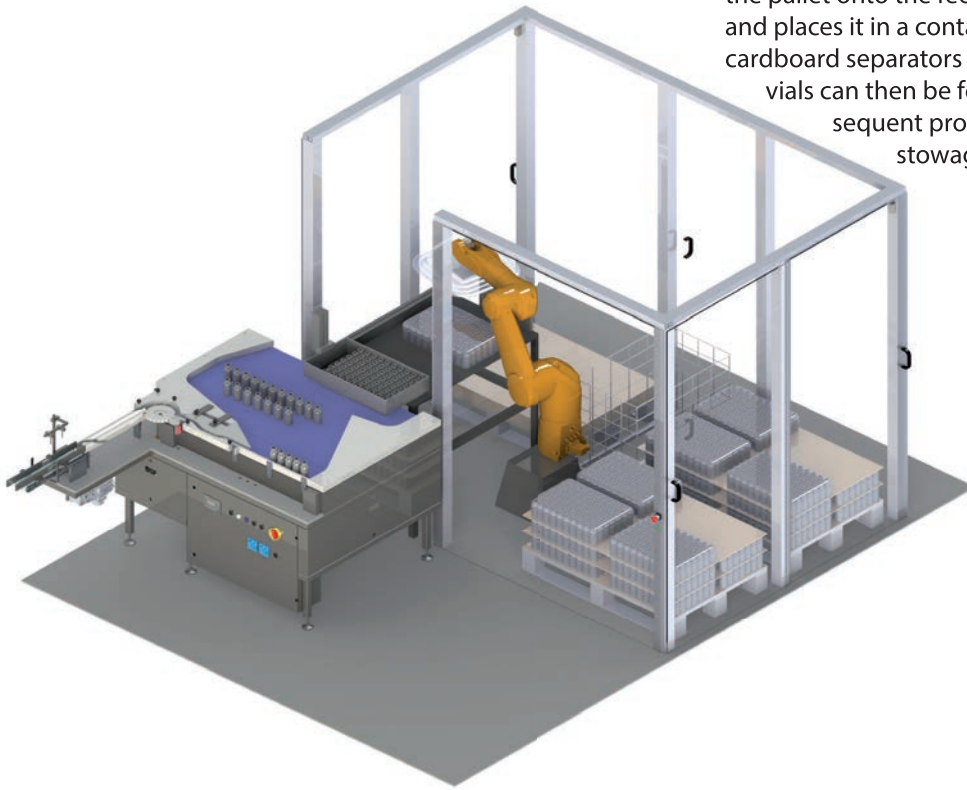




## UNPACKING SYSTEM

### Automated unpacking of film-sealed vials

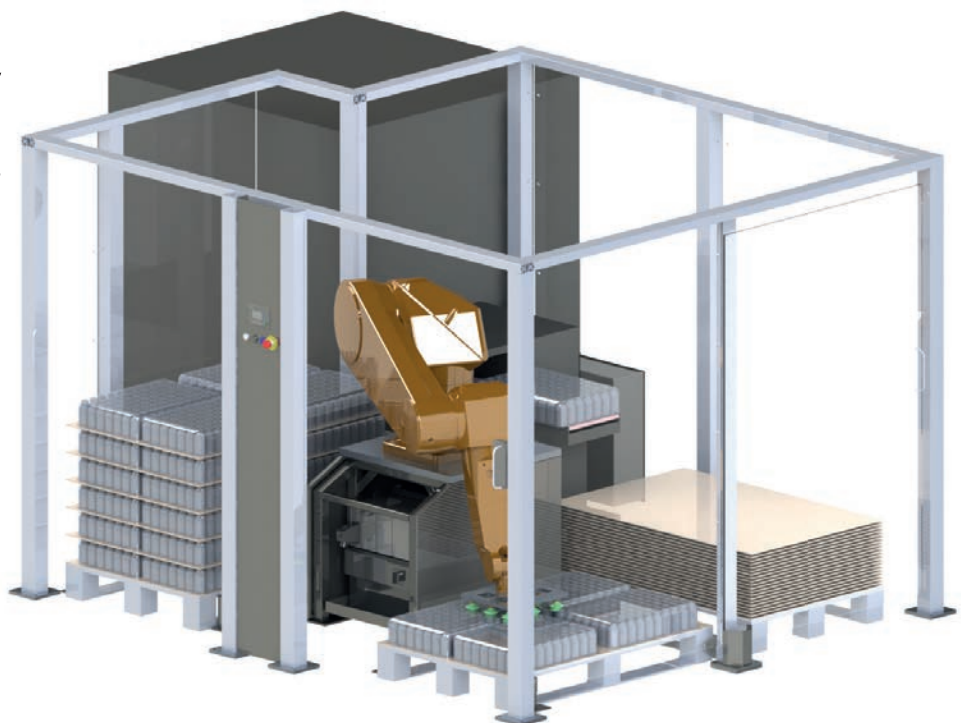
The robot lifts trays with foil-welded vials directly from the pallet onto the feed table, removes the welding foil and places it in a container, such as a cage pallet. Existing cardboard separators are placed on another pallet. The vials can then be fed fully automatically for subsequent processing, for example, via a bi-flow stowage table.



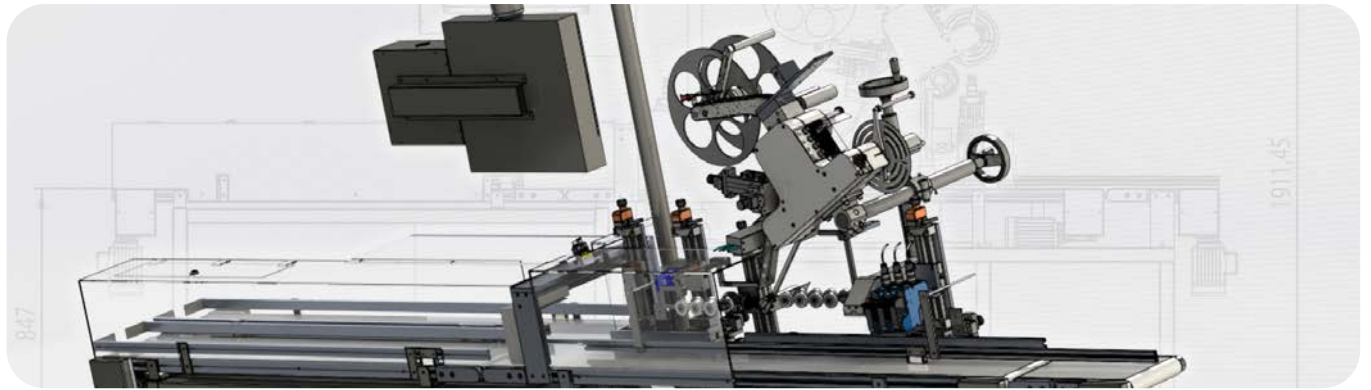
## TRAY HANDLING SYSTEM

### Automated unloading of foil-sealed vials from pallet to following machine

The robot lifts trays with foil-sealed vials from pallets directly onto the belt or the infeed of the following machine. Separating cardboard boxes are lifted off and placed on another pallet.



# OUR COMPETENCES



## DESIGN & CONSULTING



We work out an individual design with you. Thanks to our many years of experience, we guarantee our customers a smooth process from planning and programming to the finished system. All from a single source.

## 3D-CONSTRUCTION



We are able to plan our projects precisely in every detail thanks to the latest 3D technology. From individual parts to complex machines, everything is perfectly prepared for production.

## PRODUCTION



Versatility and perfection are our strengths. Using the latest CNC technology and CAM software, we offer you maximum precision when milling, turning or water jet cutting.

## ROBOTICS



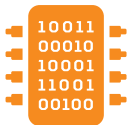
Whether packaging, welding, painting, positioning or testing - the possible uses of industrial robots are almost unlimited. We have been using this technology successfully for a long time, utilizing the sophisticated systems from well-known companies.







## SYSTEM CONTROL



Machines are controlled using modern automation and process control systems from SIEMENS. Qualified specialists perform the programming and optimization in-house.

## TECHNICAL DOCUMENTATION



The technical documentation is based on the MSV 2010. The proven SAFEXPERT program is used in our company for safety, standard-compliant construction and risk assessment. You receive:

- complete operating and instructional manual
- hardware plans
- software documentation
- maintenance plans
- declaration of conformity according to MRL 2006/42/EG
- CE marking

## INSTALLATION & COMMISSIONING



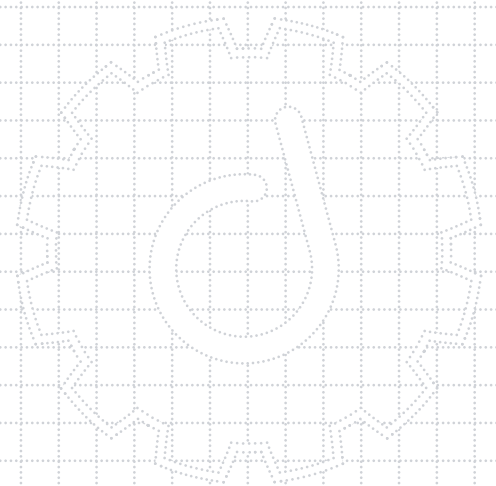
We put machines and systems through their paces before delivering them. We check:

- setup of the welded construction
- assembly of the individual prefabricated parts
- fitting of the drive technology
- installation of pneumatics, electrics and hydraulics
- positioning of actuators and sensors
- commissioning by means of system control

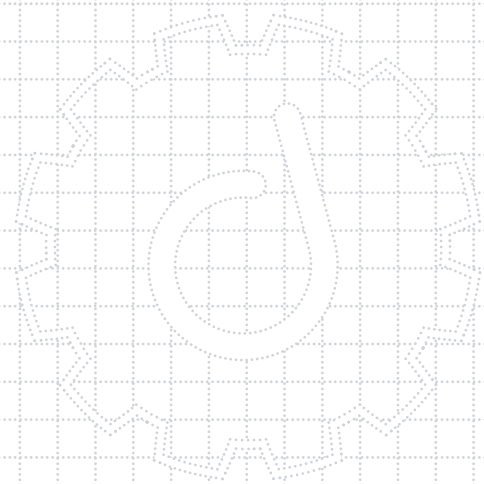
## SERVICE



We support you continuously to ensure a smooth production process. – Regardless of whether it is a question of spare parts, a conversion, a change of location of the existing machine or an update via remote maintenance. We are there for you.







2021



You can find more information, pictures and videos on our website:

**WWW.DESSL-MB.COM**



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