

INNOVATIVE AUTOMATION SOLUTIONS

AUTOMATION MADE IN GERMANY

ILSEMANN AUTOMATION

www.ilseman.com



ILSEMANN AUTOMATION

worldwide in over 60 countries

High speed robotic takeout systems coupled with precise, value-adding automation are needed to meet the demanding applications of the plastics industry. Ilsemann Automation has a proven track record as an engineering-based firm with the customer's success as the primary goal. The technical solutions change over time as the industry evolves but 50 plus years of continuous growth is only possible because we absolutely believe in the basic principal, "our customers must succeed for Ilsemann to succeed".

Companies in more than 60 countries are achieving their goals with reliance on Ilsemann Automation systems in their production. Key markets our customers serve are consumer packaging, food service, home and personal care, medical consumables and automotive components.

Ilsemann Automation offers standard design platforms for common applications but each is tailored to the needs of the project at hand. Common operations performed are high speed takeout, inspection, decoration (especially IML), multi-component assembly, packaging, and palletizing. Great emphasis is placed on delivering the best possible solution for each task taking equally into consideration both technical and commercial challenges. Reliability is the most important feature of each system we deliver but our Service team is ready to support you when you need it. Technical assistance is available by phone, e-mail, and in the field. All machines include remote access so our technicians can assist with troubleshooting and adjust programs wherever an internet connection is available. A massive inventory of spare parts is maintained for quick dispatch in case of emergencies. Our office on the US East Coast provides qualified service and parts support for North, Central and South America.

FOR THE PLASTICS INDUSTRY WE DELIVER SYSTEMS FOR:

- High speed takeout
- IML and T-IML
- Assembly
- Packaging
- Palletizing
- Customized solutions



ILSEMANN AUTOMATION

German engineered machines built to meet the challenging demands of the world

- In-house parts manufacture
- Project management
- Validation, qualification and more
- Technical support
- After sales service





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FOOD SERVICE



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**THIN WALL
PACKAGING**

THIN WALL PACKAGING

CONSUMER PACKAGING

The trend towards IML packaging for food and non-food products increases every year. From yogurt cups to paint buckets, IML is now on store shelves everywhere. Ilsemann Automation offers IML systems across the diverse spectrum. Depending on the cavitation we offer small, medium and large size systems.

Systems can be configured to insert labels into cavities on either the stationary or moving half of the mold and for single face or stack molds. High-speed side entry and top entry take out systems are offered and can be customized for special requirements. We also offer IML and parts handling systems for thermoforming applications. Ilsemann machines are distinguished by their compact footprint, high performance, and reliability. Turnkey systems are offered including quality inspection and packaging all the way through palletizing.

The finished products are automatically tested and before stacking and cartoning.

	In / out time	Total cycle time	max cavitation	output
SM 400 takeout / IML	0,8 sec. lids 1,2 sec. tubs	4,0 sec. lids 4,5 sec. tubs	1 x 16 lids 1 x 8 tubs	up to 240 lids / min. up to 105 tubs / min.
SM 400 stack mold takeout / IML	0,8 sec. lids 1,2 sec. tubs	4,0 sec. lids 4,5 sec. tubs	2 x 16 lids 2 x 8 tubs	up to 480 lids / min. up to 210 tubs / min.
SM 500 takeout	0,4 – 0,5 sec.	< 3,0 sec.	1 x 16 lids 1 x 12 tubs	up to 320 lids / min. up to 240 tubs / min.
SM 600 IML	0,8 sec. lids 1,2 sec. tubs	4,0 sec. lids 4,5 sec. tubs	1 x 24 lids 1 x 16 tubs	up to 360 lids / min. up to 215 tubs / min.
SM 700 IML	1,0 sec. lids 1,2 sec. tubs 0,8 sec. cutleries	4,5 sec. lids 5,0 sec. tubs 4,5 sec. cutleries	1 x 64 lids 1 x 48 tubs 1 x 96 cutleries	up to 850 lids / min. up to 570 tubs / min. up to 1.250 cutleries / min.
SM 700 stack mold takeout / IML	1,0 sec. lids 1,2 sec. tubs 0,8 sec. cutleries	5,0 sec. lids 5,5 sec. tubs 5,0 sec. cutleries	2 x 64 lids 2 x 48 tubs 2 x 96 cutleries	up to 1.500 lids / min. up to 1.000 tubs / min. up to 2.300 cutleries / min.

**THIN WALL
PACKAGING**

THIN WALL PACKAGING

IML INJECTION MOLDING

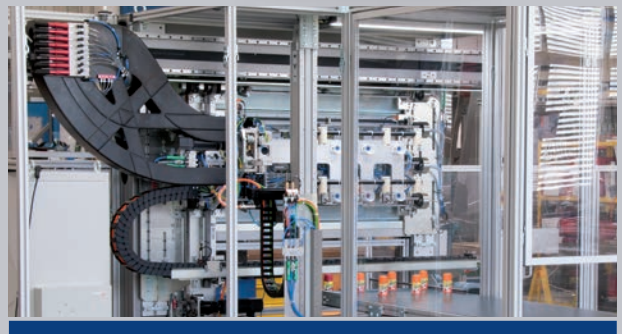
The focus of Ilsemann Automation are the needs of our customer. For low production volumes we offer small, lower priced systems with a very high degree of flexibility able to run multiple products with quick changeover. Conversely, systems for higher production volumes, including up to 2 x 24 stack molds are available. Vision inspection, stacking, case packing and palletizing options are available to maximize production efficiency, regardless of the system size.

High speed performance and reliability are critical to the success of these applications. Ilsemann's unique combination of light weight moving components, highly developed drive technology, and heavy duty, structural steel frames make cycle times of 4 to 5 sec. possible, even for the largest systems.





Label magazines



Compact IML-system for 8 cavities



Carbon gripper for IML-system having 16 cavities



Carbon arm with AI-gripper for IML-system having 8 cavities

**THIN WALL
PACKAGING**

THIN WALL PACKAGING

T-IML THERMOFORMING

Thermoforming with In-Mold-Labeling may offer a more economic manufacturing process in comparison to injection molding when it comes to producing food packaging in high quantities, especially for thin wall containers requiring an oxygen barrier. In 2010 Ilsemann Automation delivered the first system of this type and has been a successful provider ever since.

In 2015 we established the cooperation with Kiefel GmbH, a global player for manufacturing thermoforming systems. The second generation systems are fully integrated with the Kiefel thermoforming system and reach cycle times of less than 3 sec. Vision inspection, stacking and case packing are normally included.



T-IML Production Cell

with labels inserted to 21 cavities in 3x7 mold pattern



21 magazines, each with 3 labels



21 label insertion mandrels



Label hand over from magazine to mandrel



Label hand over and condensing unit

**FOOD
SERVICE**

FOOD SERVICE

CUTLERY | CUPS & CONTAINERS | CAPSULES

The market for convenience products is increasing year by year. Automation is being looked to as a means to achieve higher productivity. Ilsemann Automation offers a wide range of fully automated systems.

Drink cups are extracted from the mold in under 0.5 second and are automatically stacked, sleeved, and case packed. Cutlery produced in 2x96 stack molds are extracted, stacked, banded and case packed. Coffee capsules are extracted, inspected, and transported directly to downstream assembly and filling lines. Each system can be tailored to the needs of the specific customer.



Production Cell for Cutlery

48 cavities, take out, flow wrapping and cartoning



2 x 96 cavities, take out, stacking, banding with taping, cartoning



PHARMACEUTICAL
& MEDICAL

PHARMACEUTICAL & MEDICAL

MEDICAL CONSUMABLES

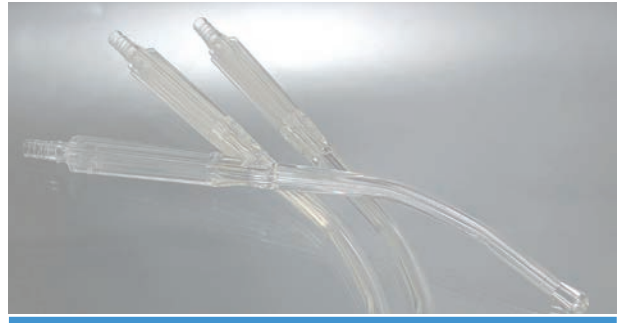
As a medical consumables manufacturer your products strive for the well-being and health of your customers. Our systems for the medical industry assure that your production processes can reach the highest standards in efficiency, quality and production safety. Our specialized medical automation systems can perform take out, assembly, and packaging operations.

The systems are suitable for use in clean rooms of the highest category. If required for support and validation we offer the delivery of cGMP compliant qualification documentation as an option.

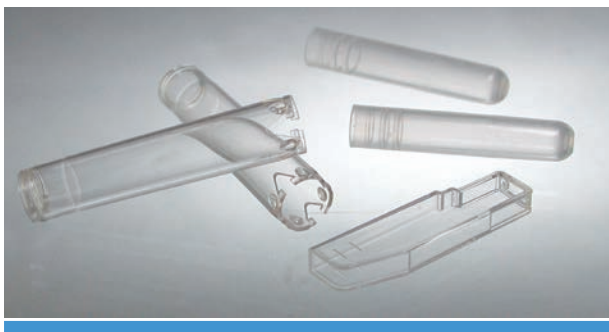




Petri dishes



Yankauer



Vessel



Caps for infusion, pipettes



Lab consumables



Transfer and condensing unit for 96 cavities



Palletizing system



Packaging system



PHARMACEUTICAL
& MEDICAL

PHARMACEUTICAL & MEDICAL

PETRI DISHES AND TISSUE CULTURE FLASKS

Laboratories around the world use a large amount of petri dishes and tissue culture flasks for microbe and cell culture cultivation. The profitable production under clean room conditions does not only call for fast running machines but also for absolute precision in each individual step of manufacturing and highest level of repetition accuracy.

A 100% quality control element is an absolute must and an inherent part of each system. In the course of each project a complete design qualification with FDS, HDS, SDS and FMEA is performed. Completion of a system is followed by an installation qualification IQ as well as the operation qualification OQ. All qualifications are performed GMP compliant. For this we have a qualified team available.





Production Cell for Tissue Culture Flasks

Take out, surface treatment, welding of the lid, pressure check, printing on sides, packing



PERSONAL
CARE

HOME AND PERSONAL CARE

FUNCTIONAL AND ATTRACTIVE PACKAGES

Packaging no longer only provides storage and protection for the product. In today's market packaging must make a statement and create attention.

Packaging designers are faced with increasing demands to make product stand out from the competition and their innovative designs often increase manufacturing complexity. Customized automation solutions are needed to achieve the desired package characteristics.

Our experienced teams meet even the most complex challenges. An Ilsemann Automation system delivers added value with the high degree of reliability needed.







**CAPS &
CLOSURES**

CAPS AND CLOSURES

CLOSURE SPECIALISTS

The role of Caps and Closures continues to expand in packaging. This creates new challenges for manufacturing. Specialty closures for tamper evident, child resistant, anti-counterfeit, dispensing, dosing, and barrier packages usually require a multi-component assembly process. Volumes are high and precision is called for. We have developed standard automation platforms able to simultaneously assemble up to 20 closures at a time at each assembly station.

Our systems have achieved rates as high as 1,000 closures per minute with up to 10 operations performed in the assembly process. The systems are compact, flexible, and very reliable.



Assembling system for closures



Assembling station



Cap feeding unit



Fitment feeding unit



QC check of assembled closures



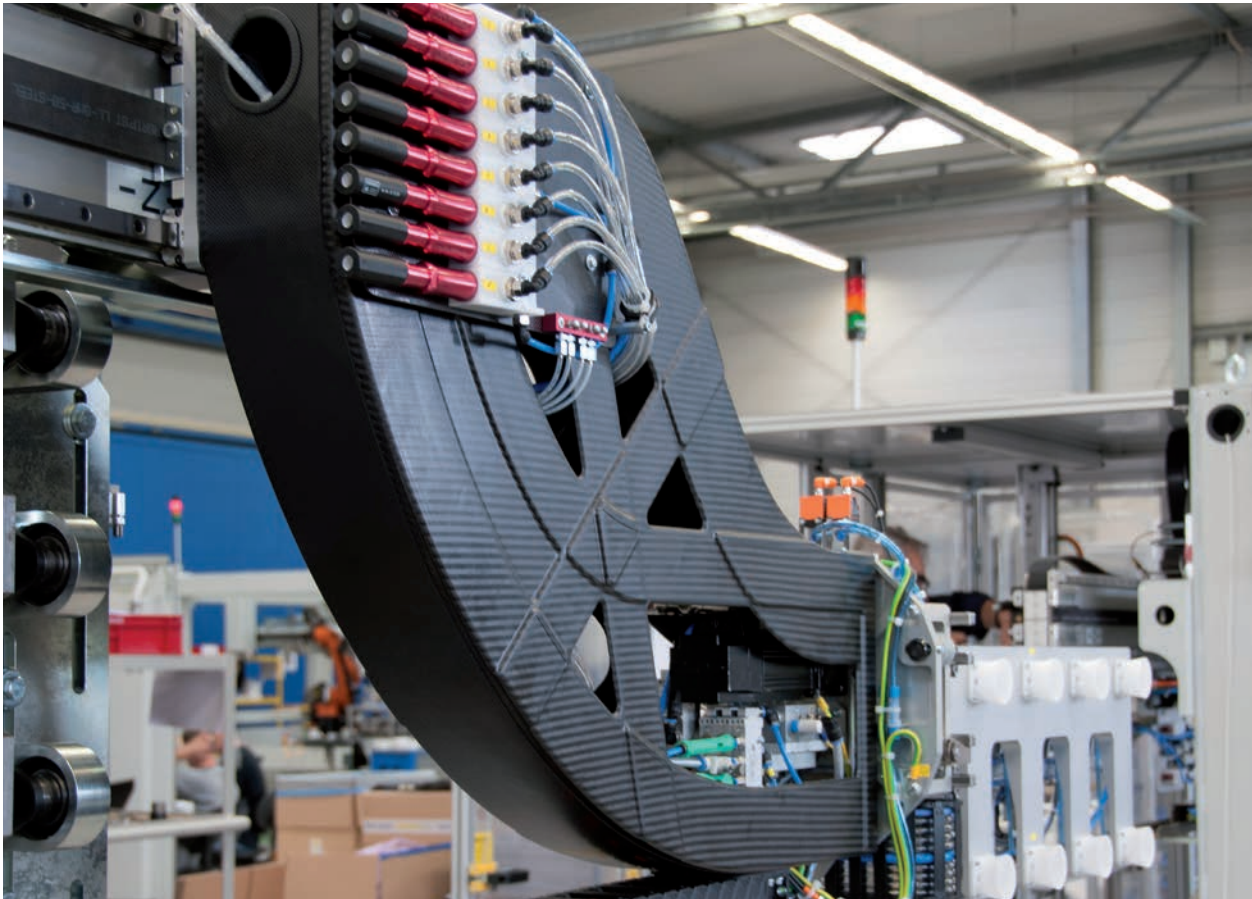
**CUSTOMIZED
SOLUTIONS**

CUSTOMIZED SOLUTIONS

FOR UNIQUE APPLICATIONS

For special projects where we do not offer a standard system our design team will work together with you to develop a concept that meets the needs. Usually we are able to tweak and combine pre-existing elements proven effective on other systems in new ways to create an individually tailored system specifically suited for your production.

We can rely on a large team of talented engineers, programmers, in-house parts manufacturing and a spacious assembly floor to achieve the best possible solution. For the FAT of your system we can even integrate a complete production line running your mold in our facility.



Weight reduced gripper

ASSEMBLING SYSTEM FOR SPECIAL CLOSURES

Assembling of up to 10 components including QC check and cartoning by layers



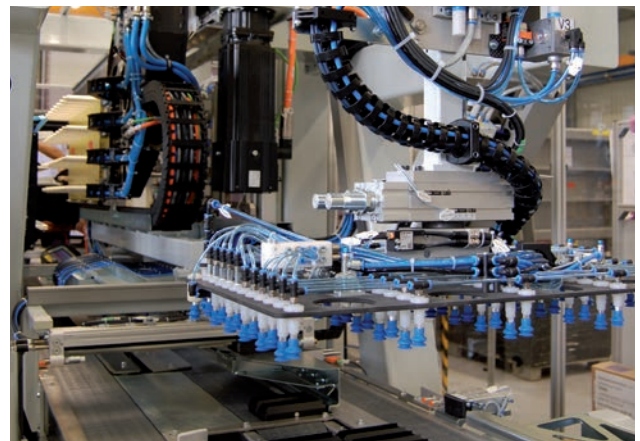
IML SYSTEM FOR TABLET TUBES

Straight wall tablet tubes with IML, 32 cavities, including optical QC check and special cartoning by layer



CARTONING ROBOTS

Layer grouping and cartoning



TAKE OUT ROBOT WITH TRAY LOADING

Inserting of magnets, take out of finished products, QC check, oriented placing into trays and fully automated tray stacking.

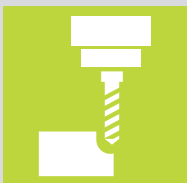


SERVICE services for clients



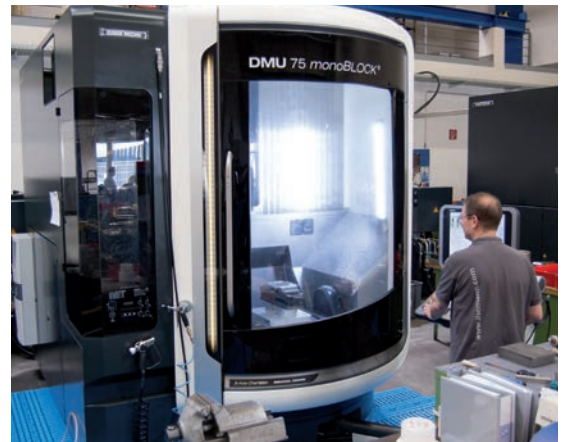
SPARE PARTS

- Permanent stock of spare & wear parts
- Peripheral equipment & tools



TOOL SHOP

- Format parts manufacturing
- Precision parts manufacturing
- Prototyping



PROJECT MANAGEMENT

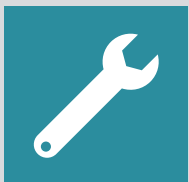
- One face to customer
- Milestone & project schedules
- Planning, organizing, securing and managing





QUALIFICATION AND VALIDATION

- DQ, IQ/OQ, PQ
- Change control documentation
- Support for full validation process



TECHNICAL SUPPORT & SERVICE

- Telephone support
- Commissioning
- Service agreements
- Trainings, overhauls, relocations
- Maintenance visits



WORLDWIDE AGENCIES

- Local representatives with technical service around the world





AUTOMATION

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Remark: The products shown in this brochure are not exclusively produced with machines of Ilseman Automation.