



Consumer Goods

Indispensable Products for Modern Lifestyle

Today, injection molded plastics play a decisive role in the consumer goods market. With the use of molding automation, many processes can be optimized for lower cost per piece and higher manufacturing quality. A few examples will give an impression of the multitude of applications.

IML in Consumer Goods Packaging

Advanced In-Mold Labeling (IML) technology opens up new vistas in consumer goods packaging. Labels with brilliant decorations, enhanced barrier properties (e.g. UV protection) or additional functionality like RFID tags, can be integrated within the injection molding or thermoforming process. As subsequent labeling or printing stages become superfluous and product changeovers require little, if any, manual interaction or production stops, IML is a key technology for cost-efficient, high-quality mass production.

Growing Markets for Closures

With more than one trillion units per year, plastic closures are a classic example of high-volume, high-cavity injection molding. Nevertheless, caps and closures are a fertile area for new product development. Adding value, convenience and differentiation to brands and packs is a key factor for success in an increasingly competitive global marketplace. The plastic industry aims for larger pouring areas, less opening force and weight reduction, which means environment-friendliness and cost reduction as well.

High-Quality Body Care Products

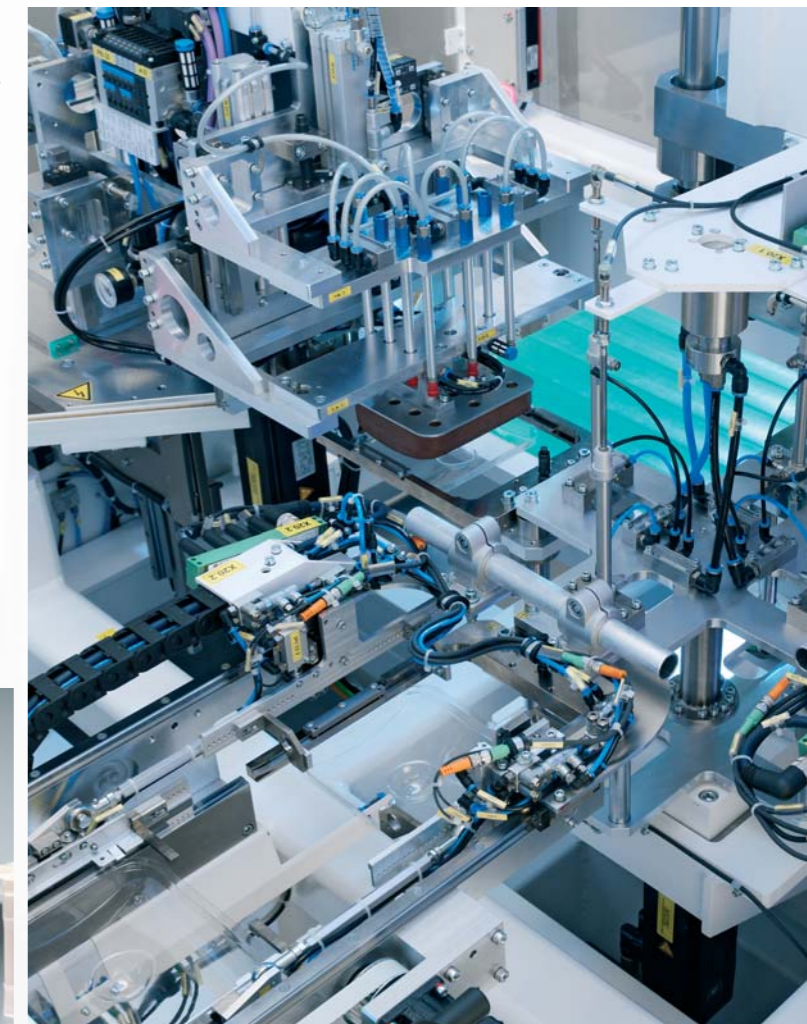
Without injection molded products, modern personal care and cosmetics would almost be inconceivable. Safety razors, toothbrushes, soap and cream dispensers or deodorant sticks are manufactured using advanced technologies like multi-color or two component molding with thermoplastic elastomers or liquid silicone rubber.

Uncharted Terrain? We Take the Challenge!

The consumer goods market is driven by constant innovation. New products like reclosable cans, new kinds of toys or highly-integrated consumer electronics often require new manufacturing technologies – and braving new grounds or outside-of-the-box thinking are among HEKUMA's strengths.

HEKUMA's Automation Technology Offers

- Sophisticated IML and T-IML solutions
- Complex multi-part assembly
- High-precision insert-molding technology
- Product-specific quality assurance
- ISO 9001, FDA, GMP, cGAMP Certification



At the Cutting-Edge of Molding Automation

Sophisticated Automation Technology

Applying the newest available components and technologies, both for mechanical and control systems, means that our automation solutions are setting standards. HEKUMA's pre- and post-processing solutions include sophisticated insert-technology, cavity-oriented sorting and quality assurance as well as multi-part assembly, ultrasonic welding and decorating with laser marking, thermotransfer or pad printing. Stacking, banding and wrapping can be performed within the production line, with subsequent transfer to either custom designed or standardized downstream bagging and boxing systems, like tray servers, carton loading stations or automated palletizing systems etc.

Breaking New Grounds

HEKUMA developed crucial technologies, which finally made T-IML ready for production. We were the first to take the challenge to deal with IML for extraordinary large cavities for 32 oz stadium cups. HEKUMA has even presented a unique labeling process for PET and PVC blister packaging with or without integrated RFID-tag handling. At all times, HEKUMA's objective is the development of customized high-quality molding automation solutions, including up- and downstream automation for reliable handling of large production volumes. Operational safety, stability, and high reliability are the basis for all of our developments.

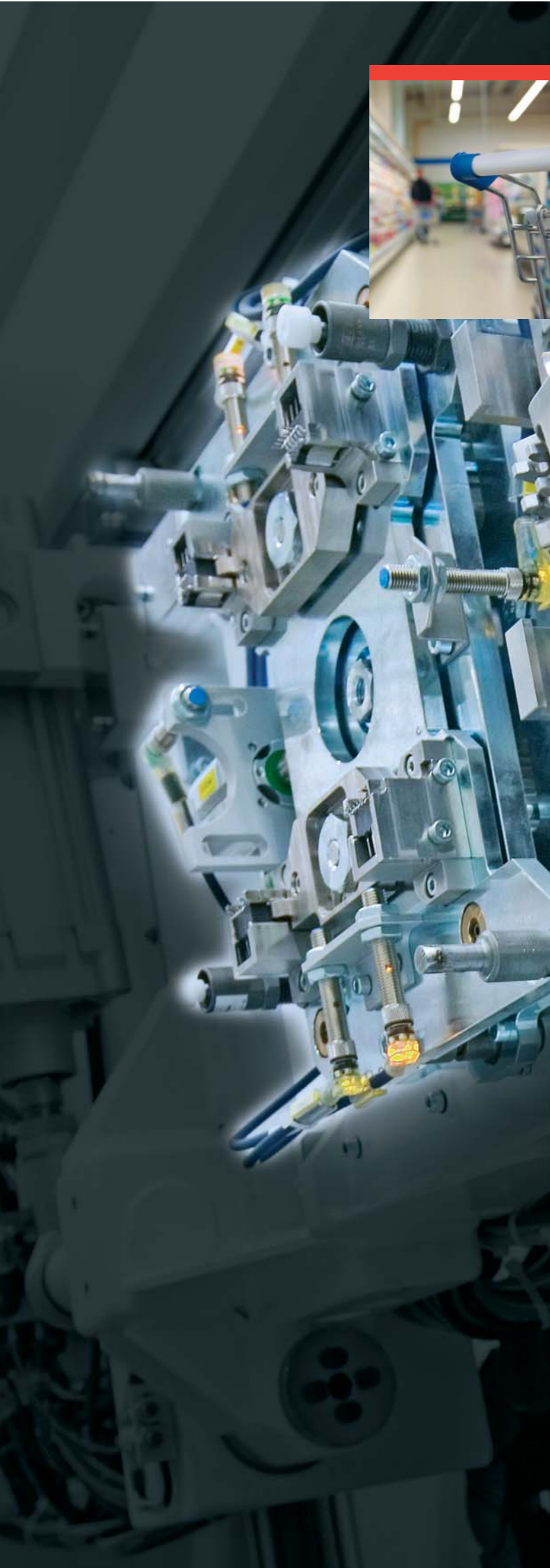
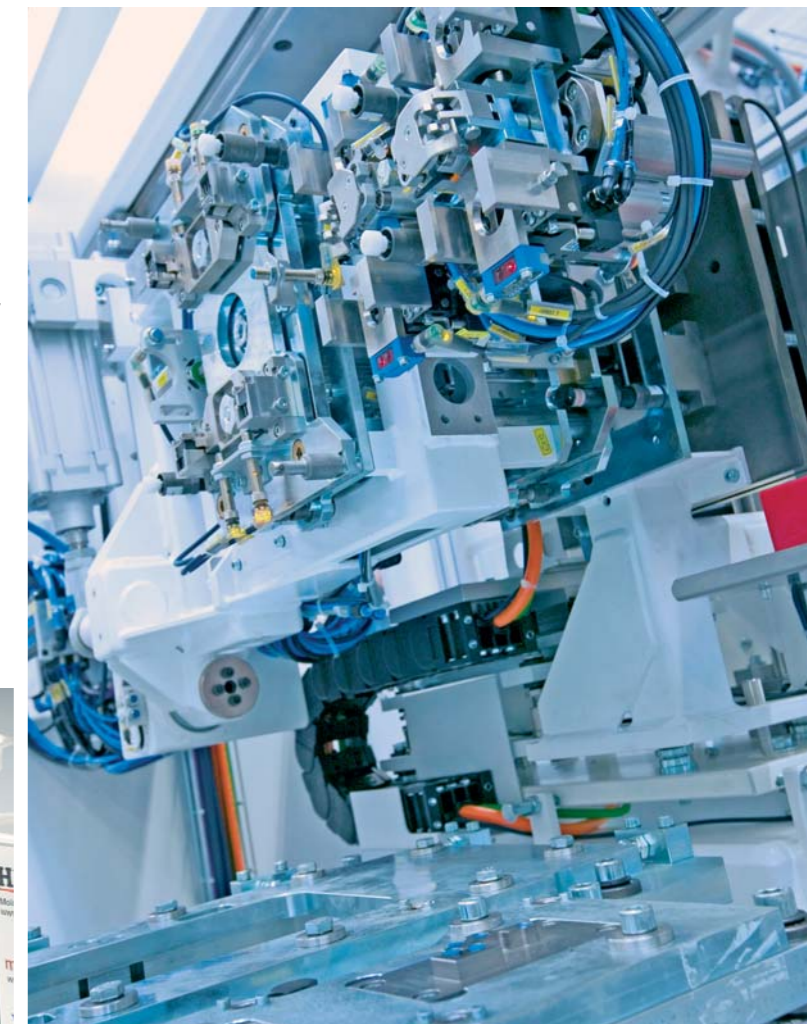
Integrated Design Approach

Experience shows that any complex automation system will benefit from an integrated design approach. At HEKUMA you will find this expertise, backed by more than 35 years of experience in realizing high-speed automation. Calling our specialists in early product

development stage will result in higher performance, less maintenance requirements and outstanding economic returns.

HEKUMA's Range of Services Comprises

- IML process development and optimization
- Advice on labels and label manufacturers
- FS Functional Specification
- FMEA
- Extensive Qualification Support
- Factory Acceptance Test
- Concept studies for optimal manufacturing processes
- Cavity-oriented sorting and packaging



It's All About Economic Efficiency



High Output Through Robust Design

HEKUMA's smart and rugged automation design guarantees high availability and machine uptime. Decoupling of crucial steps, integrated buffer zones and cavity-oriented quality inspection yield to robust processes, which will suffer less downtime for trouble shooting and maintenance. HEKUMA's solutions achieve machine uptimes of up to 98% in high-volume environments and are well-proven in lights-out production.

From State-of-the-Art to Entry-Level

Where advisable, HEKUMA standardizes its product portfolio. HEKU 3, a high-speed linear robot with modular design features accelerations up to 100 m/s² and positioning accuracy of at least 0.01 mm. With transfer loads of up to 260 kg, it is suitable for high-cavity applications with sophisticated, multi-function EOAT. The HEKUflex system is a highly flexible, entry-level automation cell, equipped with a 6-axis robot. HEKUflex provides a cost-efficient solution for applications such as basic IML or low-volume production environments that require quick and easy product change capability. Top-entry 3-axis robots complete HEKUMA's range of entry level solutions.

Customized and Off-the-Shelf

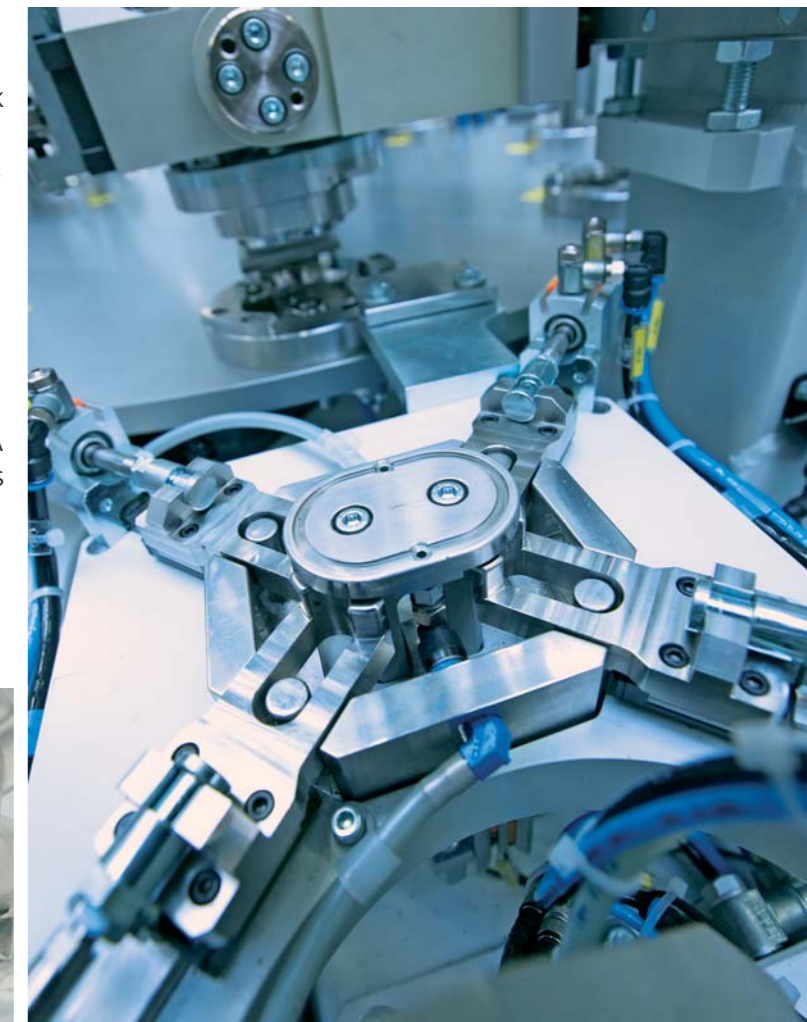
Tailor-made doesn't automatically mean expensive, when following a flexible and lean manufacturing approach. Combining industry standard components with in-house mechanical engineering, electronics, pneumatics and process control engineering, HEKUMA is able to deliver robust, customized automation solutions with a very attractive price-performance ratio.

Solutions From a Single Source

HEKUMA takes care of development, design, processing, assembly, programming, installation and debugging of complete automation systems; including the integration of injection molding machines, tooling and peripherals. We support validation or certification processes or take them over completely. Our worldwide service and customer support ensures reliable operation in the long run.

HEKUMA's Solutions Feature

- High-end as well as entry-level automation
- Shortest possible cycle times
- Minimum mold open times of less than 0.4 sec
- Number of cavities: 96 and more
- Robot axis acceleration up to 6 G with payloads of 260 kg
- Elaborate up- and downstream automation





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HEKUMA, member of the elexis group, is specialized in molding automation systems for the plastics industry. HEKUMA develops, designs, manufactures and assembles complete automation systems, including high-speed linear take-out robots, 6-axis robots, up- and downstream automation, quality testing and offers full system integration of injection molding machines, molds, and automation systems. The company was founded in 1974 and is located in Eching close to Munich, Germany.