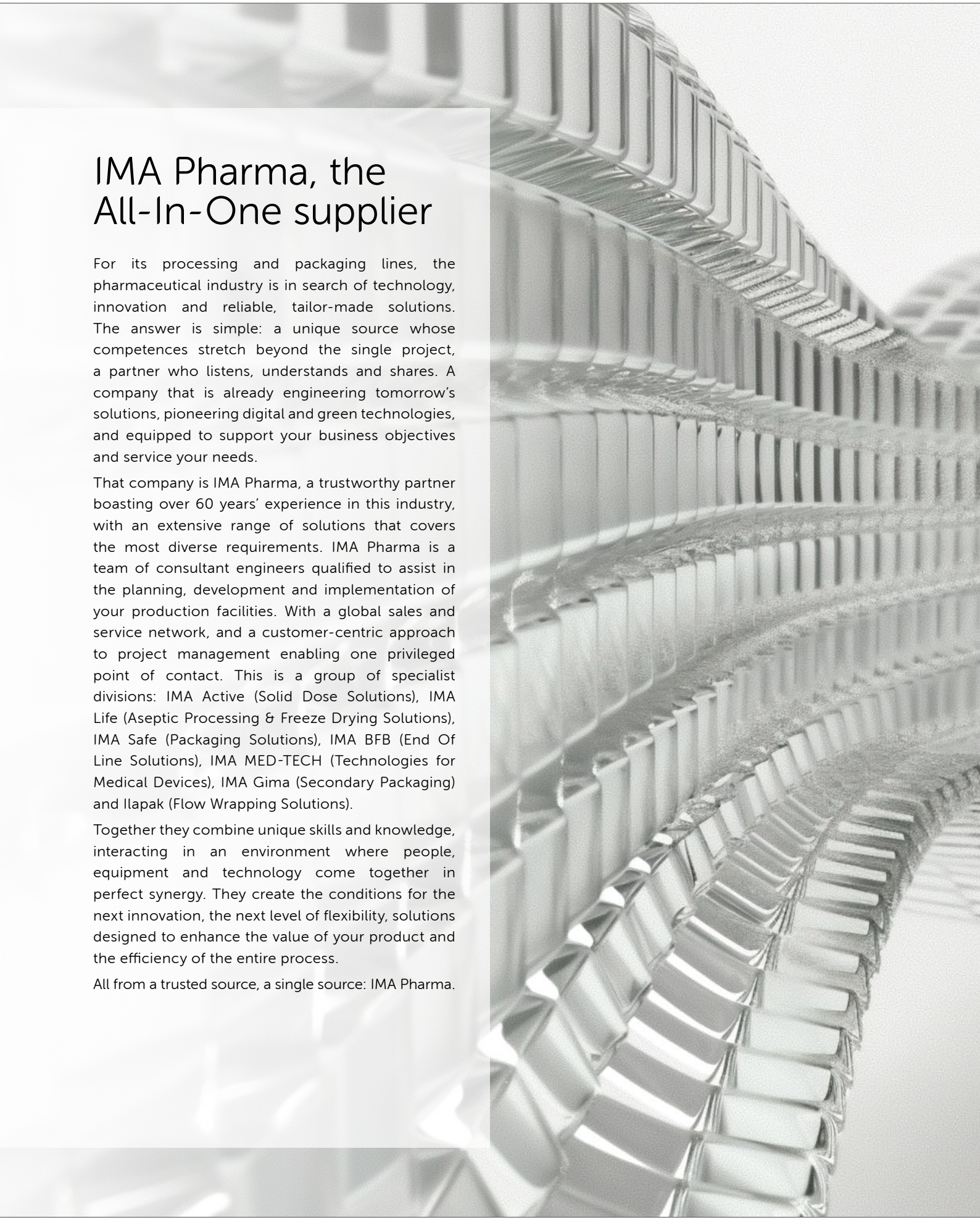
PHARMACEUTICAL INDUSTRY

PROCESSING AND PACKAGING SOLUTIONS

INDEX

IMA PHARMA



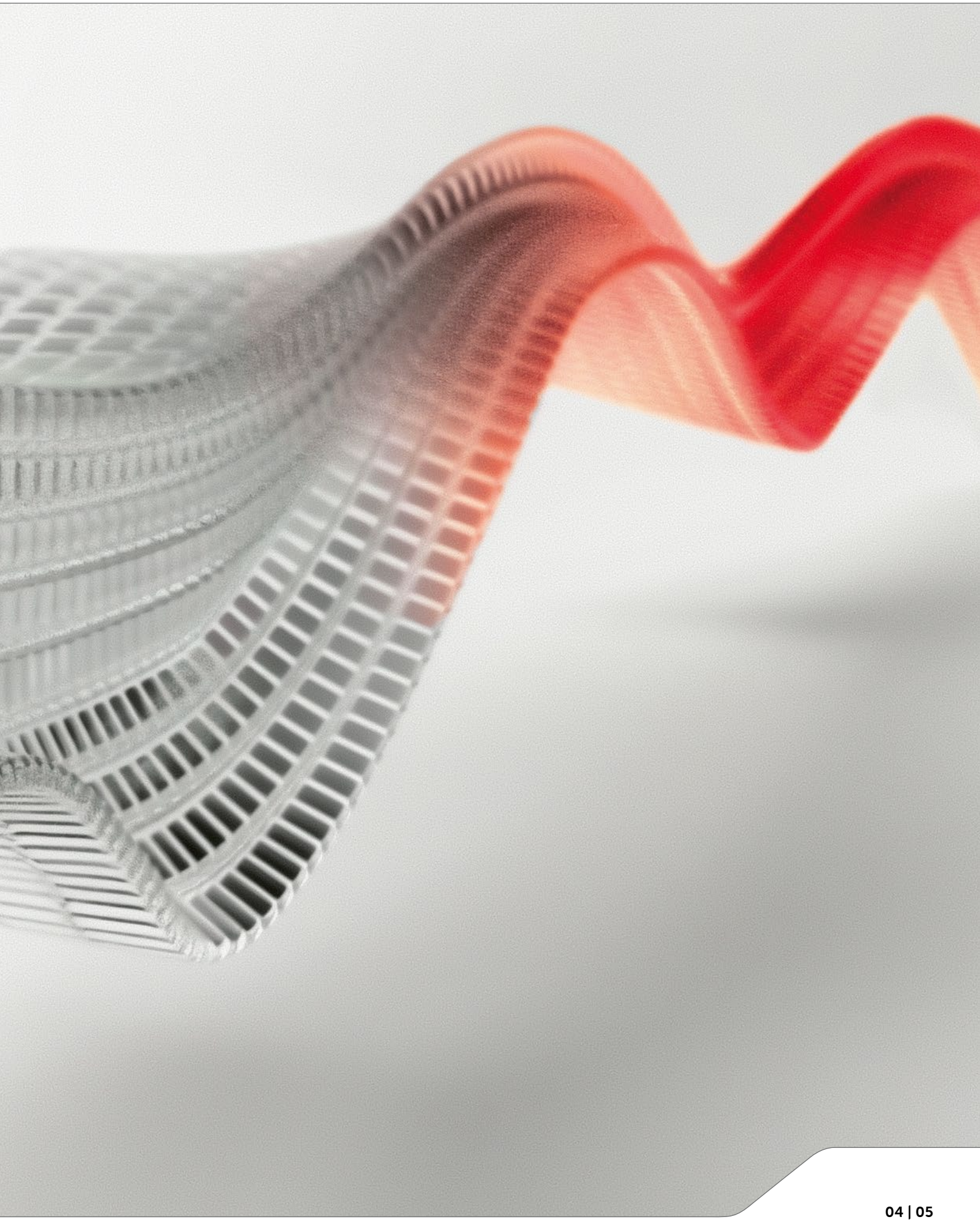
IMA Pharma, the All-In-One supplier

For its processing and packaging lines, the pharmaceutical industry is in search of technology, innovation and reliable, tailor-made solutions. The answer is simple: a unique source whose competences stretch beyond the single project, a partner who listens, understands and shares. A company that is already engineering tomorrow's solutions, pioneering digital and green technologies, and equipped to support your business objectives and service your needs.

That company is IMA Pharma, a trustworthy partner boasting over 60 years' experience in this industry, with an extensive range of solutions that covers the most diverse requirements. IMA Pharma is a team of consultant engineers qualified to assist in the planning, development and implementation of your production facilities. With a global sales and service network, and a customer-centric approach to project management enabling one privileged point of contact. This is a group of specialist divisions: IMA Active (Solid Dose Solutions), IMA Life (Aseptic Processing & Freeze Drying Solutions), IMA Safe (Packaging Solutions), IMA BFB (End Of Line Solutions), IMA MED-TECH (Technologies for Medical Devices), IMA Gima (Secondary Packaging) and Ilapak (Flow Wrapping Solutions).

Together they combine unique skills and knowledge, interacting in an environment where people, equipment and technology come together in perfect synergy. They create the conditions for the next innovation, the next level of flexibility, solutions designed to enhance the value of your product and the efficiency of the entire process.

All from a trusted source, a single source: IMA Pharma.



IMA DIGITAL

IMA is where

DIGITAL
has become real

IMA Digital represents the epicentre of technological innovation and the cornerstone of digital transformation within the IMA Group. With a holistic approach that encompasses all facets of the industry, this project aims to revolutionise manufacturing by offering advanced solutions for efficient and secure management of production facilities. Designed for both internal use and a global clientele, the solutions proposed by IMA Digital position the company at the forefront of the industrial landscape, combining cutting-edge technologies with an integrated and secure approach. IMA Digital is committed to being a trusted partner, addressing current and future challenges in the sector alongside its customers.

The power of IMA Digital is evident in its commitment to the development and implementation of advanced technologies for plant monitoring, supported by artificial intelligence and machine learning algorithms. This approach, enriched by digital training programs and platforms dedicated to plant management, is supported by a solid technological know-how that constantly enhances production performance.

Supporting

PHARMA

to go beyond

IMA Digital projects include the development and application of artificial intelligence, divided into traditional AI and generative AI. Virtual laboratories provide the ideal environment for the development and testing of traditional AI through pilot projects, while collaborative platforms facilitate the exchange of innovations and solutions among IMA, its partners, and customers. Generative artificial intelligence solutions streamline access to information and contribute to the training of customers operators, speeding up issue resolution.

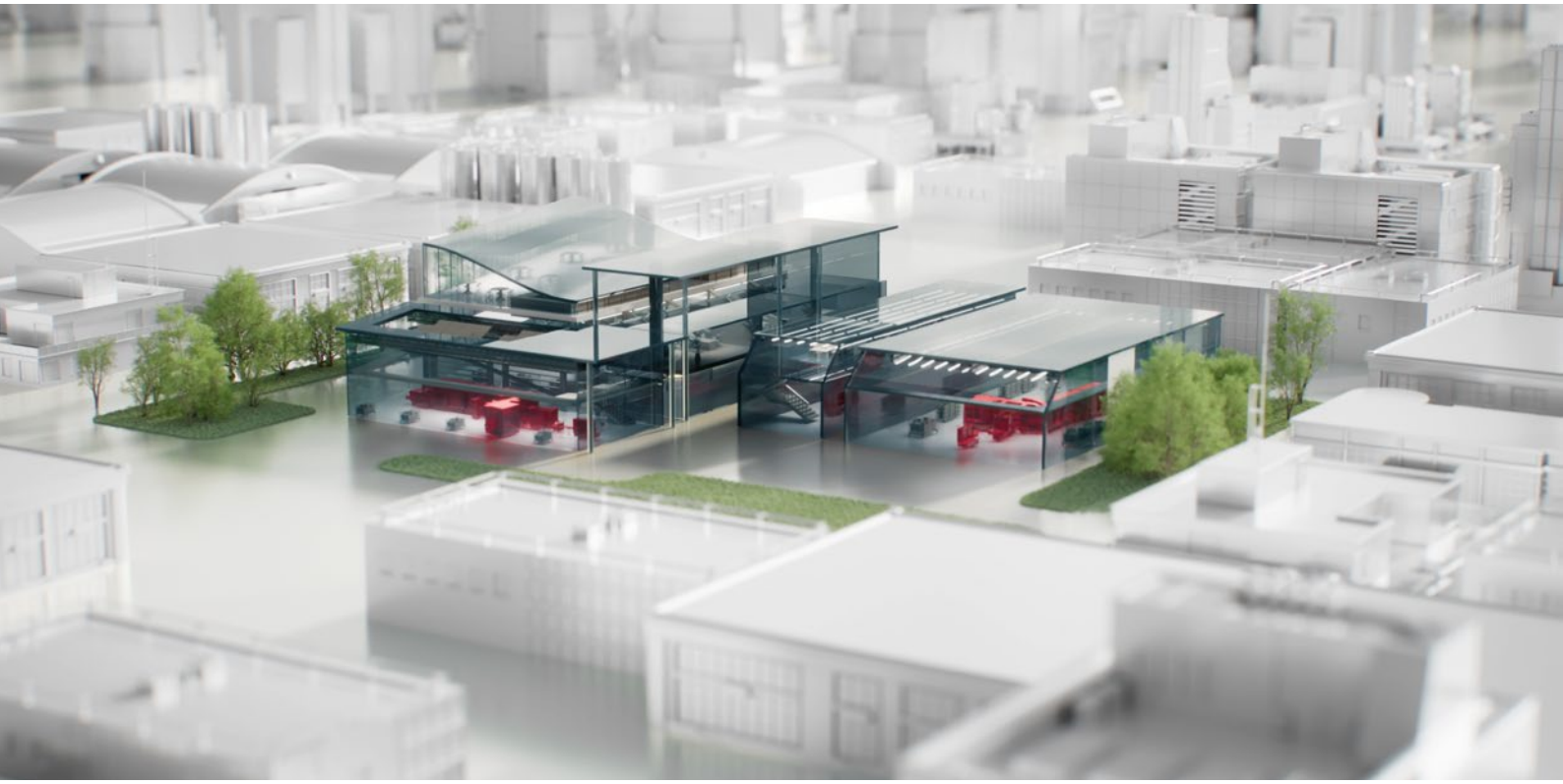
Efforts in the field of artificial intelligence are integrated with services for remote monitoring of production facilities and advanced cybersecurity solutions, crucial for protecting data and ensuring the integrity of industrial operations.

This system ensures the security of digital operations and interactions with machines, creating a secure environment for the flow of strategic data.

In addition to these innovations, IMA Digital offers a wide range of digital services and solutions to improve and simplify the management of installed equipment installed at client sites.

From digital training to e-commerce, the goal is to provide comprehensive support to optimise production operations.

SUSTAINABILITY



IMA is where
SUSTAINABILITY
drives action

Sustainability is the cornerstone of IMA, driving decisions and actions across three essential pillars: people, profit, and the planet. Since publishing its first Sustainability Report in 2013, IMA has remained steadfast in reinforcing a responsible business model, where sustainability is an integral part of its strategy, innovation, and long-term value creation.

Over the years, IMA has turned this commitment into tangible actions, from building production plants that meet stringent environmental standards to designing automatic machines that balance performance, efficiency, and sustainability. By embedding ecological transition principles into product development, IMA actively contributes to global decarbonisation and the circular economy, shaping a more sustainable industrial landscape.

Beyond its direct operations, IMA engages its entire value chain, collaborating with suppliers to promote responsible sourcing and align with the highest environmental and social standards. By integrating sustainability across all aspects of its business, IMA strengthens its leadership in automation while driving measurable progress toward a lower-impact, more efficient industry.

Supporting

PHARMA

to lead with responsibility

Addressing sustainability in the pharmaceutical industry presents distinct challenges, demanding a delicate balance between environmental & social responsibility, product performance (quality & safety), and user experience.
IMA Pharma addresses these challenges through ambitious and innovative projects like IMA LOW (Low Impact Program) and IMA NOP (No Plastic Program). Tackling energy efficiency, waste reduction and fostering the use of eco-friendly materials all underscore a commitment to advancing sustainability within the complex landscape of pharmaceutical manufacturing.
One tangible example of this strategy is OPENLab, the network of IMA laboratories that research and develop new sustainable packaging materials, working together with packaging manufacturers and customers to promote plastic substitutes that can be processed on our machines.

SOLID DOSE PROCESSING
Solutions

Protection that is always active

The most important element of any drug is its active ingredient, and protecting that element in Oral Solid Dosage form is what IMA Active achieves with its knowledge, experience and innovative technologies.
Driving the industry towards solutions that prioritise quality, safety and flexibility, IMA Active offers a complete range of solid dose processing equipment and has also pioneered the development of Continuous Manufacturing to support the industry's need for production agility and sustainability. This makes IMA Active an ideal partner for excellence, not just for batch production but also for integrated Continuous Manufacturing lines.
Alongside granulation, tableting and coating solutions, IMA Active provides cutting-edge capsule-filling, handling and washing systems, and ensures expert technical support and valuable resources to customers and the pharmaceutical industry as a whole.

SOLID DOSE PROCESSING
Solutions

IMA Active Competence Center

As a specialised unit devoted to fostering and developing expertise in Oral Solid Dose, the IMA Active Competence Center serves as a centralised hub for knowledge and resources, providing support, training and guidance to individuals or teams working within that domain. The IMA Active Competence Center collaborates closely with all the technical departments to drive innovation, improve processes, and maintain a competitive edge in OSD innovation.

TEST

- Process implementation
- Pre-registration support
- Feasibility study
- Process risk analysis
- Process validation

DEVELOP

- Formulation development support
- Up and down-scaling
- Technology transfer
- Process and cleaning validation
- Machine start-up

OPTIMISE

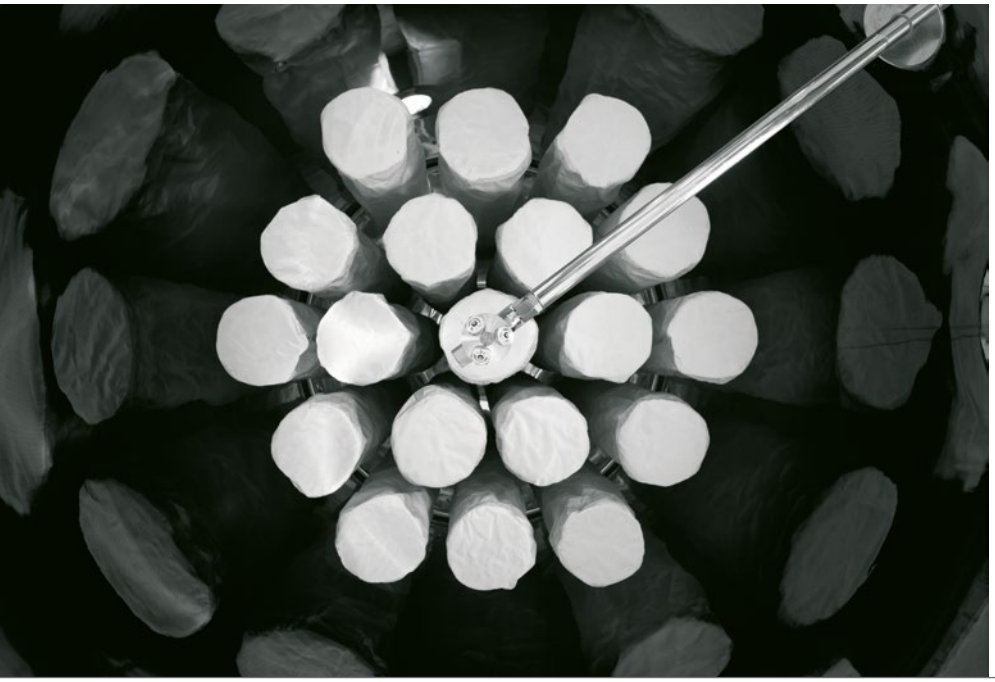
- Onsite product and process optimisation
- Troubleshooting
- Remote assistance
- Training
- Educational program


L1

Granulation

IMA Active supplies a complete range of granulation equipment: from small laboratory scale equipment for R&D purposes to industrial equipment for the production of granules. Equipment modularity ensures maximum flexibility in terms of installation and easy integration into complete processing lines, while careful geometry scalability and accurate control of process parameters make for easy scale-up and greater efficiency.

Developed in 1984, **ROTO CUBE** is the benchmark for single-pot granulation. It combines high shear mixing with drying and milling. Performed in the same equipment, this delivers ready-to-use, dry granules, thereby enhancing manufacturing sustainability.



Precise process control and premium quality engineering are the key features of **ARIA** fluid bed processor. Simplified processing concepts based on smart design together with GMP-compliance for maximum efficiency fully respond to current industry requirements.

Tableting

IMA Active's tablet presses are built to deliver top-level performance, using centrifugal or force-feed die filling systems and ensure maximum reliability with pre-compression and main compression forces up to 100 kN thanks to their sturdy structure. Accurate process control and versatility make IMA Active's tablet presses the right solution for pharmaceutical companies seeking efficiency and adaptability.

DOMINA is a modular, technological platform enabling companies to define the ideal configuration to perfectly compress any powder into any tablet. This tablet press is easy to use, simple and fast, with innovative technical solutions that deliver the desired results in terms of product requirements. DOMINA automation is a step ahead of other machines, helping to maximise production and minimise errors.

SOLIDA extends the benefit of a robust tablet press to a wider range of production, allowing both pre-compression and main compression forces up to 100 kN. Both the IMA 8 tooling and the segment technology allow for improved output for tablets up to 11 mm diameter. SOLIDA allows single reject and sampling both in mono and bilayer configuration: in-line control is the key to process stability.

Capsule filling

IMA Active's expertise in this sector goes back to the first automatic capsule filling machine in the world produced in the 1950's. A wide range of filling systems giving excellent results with all kinds of products, in- and off-line control technology and high automation are IMA Active's key strengths, together with an unrivalled experience in high containment.

ADAPTA capsule filling machine covers R&D, low, medium and high-speed requirements and features exceptional design flexibility: three of its dosing units are interchangeable allowing plug-and-play shift between different machine configurations and filling combinations. With the appropriate options, total production control and efficiency are achieved with any product dose. The machine is suitable for multiproduct dosing even at high speed.

PRACTICA capsule filling machine covers low, medium and high-speed production requirements and performs single product dosing (powder, granules or pellets) with very high accuracy. The machine is highly reliable thanks to its engineered simplicity and ensures extremely easy operation and low maintenance. User-friendliness is its hallmark.

Coating

Over forty years of experience are proof of the quality of IMA Active's coating equipment. Both solid wall models and perforated pans feature a high-efficiency mixing system allowing topmost flexibility in terms of workable batches. Continuous coating technologies complete the variety of latest-generation solutions.

PERFIMA coater is the ideal solution to process high potent pharmaceutical products for processes requiring a high level of automation. The machine is fitted with automatic product loading and unloading and it can be equipped with automatic spray gun position control. PERFIMA is equipped with an automatic Clean-In-Place (CIP) system.

Handling

IMA Active's handling systems include a wide range of equipment and technical solutions: dispensing and feeding systems, bins and drums, tumblers, lifting columns and high containment valves. Thanks to its engineering know-how, IMA Active's can integrate different equipment seamlessly into complete solid dose processing lines.

TWINVALVE is a reliable solution for handling powders, granules, tablets and capsules in high containment. It can be used as a standard butterfly valve on bins and can be easily retro-fitted on existing powder handling plants, allowing containment during powder transfer.

The **CYCLOPS** series of bin tumblers for blending and homogenising powders and granules features the innovative Trigon System, a universal bin blocking system with a unique pharma GMP design to simplify loading and unloading operations. Through-the-wall installation is possible to minimise space requirements in the production area.

Washing

IMA Active's washing systems include a wide range of equipment and technical solutions with smart design, compact dimensions and accurate finishing. Proper engineering, together with years of experience and a solid knowledge and understanding of cleaning dynamics, ensure optimal performance while minimising consumption.

ATLANTIS is a washing station designed to wash and dry, in a completely automatic mode, containers (IBCs) and other components used within the pharmaceutical industry. Its basic configuration has a stainless steel cabin with square section and includes a single door with manual opening and inflatable seal. The machine is designed for through-the-wall installation: as an option the machine can also be supplied with a second door for pass-through installation to separate non-clean areas from clean areas.

AQUARIA achieves top-level performance while minimising water and detergent consumption. The machine works either with a water recirculation system with high flow rate at 6 barG pressure, or once-through washing cycles with low flow rate at 8 barG, included in the base configuration as standard. It is therefore possible to create highly flexible washing recipes, combining recirculation and once-through washing cycles.

ASEPTIC PROCESSING & FREEZE DRYING
Solutions

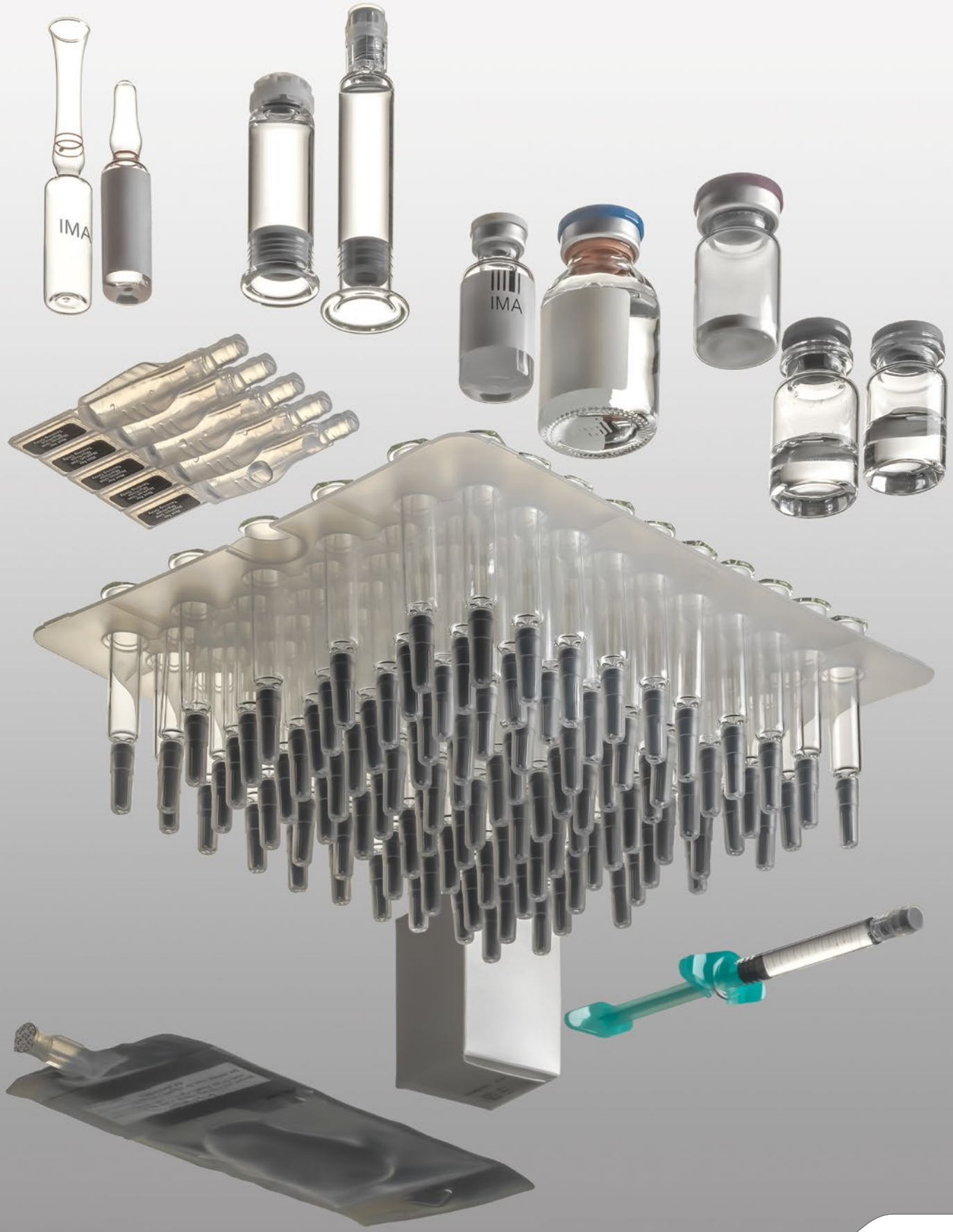
Sensitive to life

The goal of IMA Life is to preserve the integrity of pharmaceutical products, ensuring maximum sterility and providing protection for both operator and environment through highly specialised, enclosed and aseptic processing systems. Due to strict industry standards, high-tech equipment is required to process aseptic pharmaceuticals. IMA Life manages large-scale projects, designing and manufacturing custom solutions to meet special end-user requirements.

A vast range of products covers all key processing needs, including gloveless innovations for ATMPs/cell & gene therapies, decontamination tunnels, isolation and containment solutions, and a full range of freeze dryers, which can be integrated with the industry's wide assortment of automated loading and unloading systems.

The portfolio is further strengthened by advanced lyophilisation process development tools, controlled nucleation technology, and a range of environmentally friendly refrigeration systems for freeze dryers.

IMA Life also offers equipment for non-aseptic pharmaceuticals, accomplishing assembly and labelling operations and a broad selection of ancillary equipment built to the highest technical standards.


IMA
IMA

R&D Laboratories

IMA Life counts two R&D Laboratories staffed by highly skilled professionals, with extensive experience gained in the field of parenteral product and process development.

ISOTECH LABORATORY

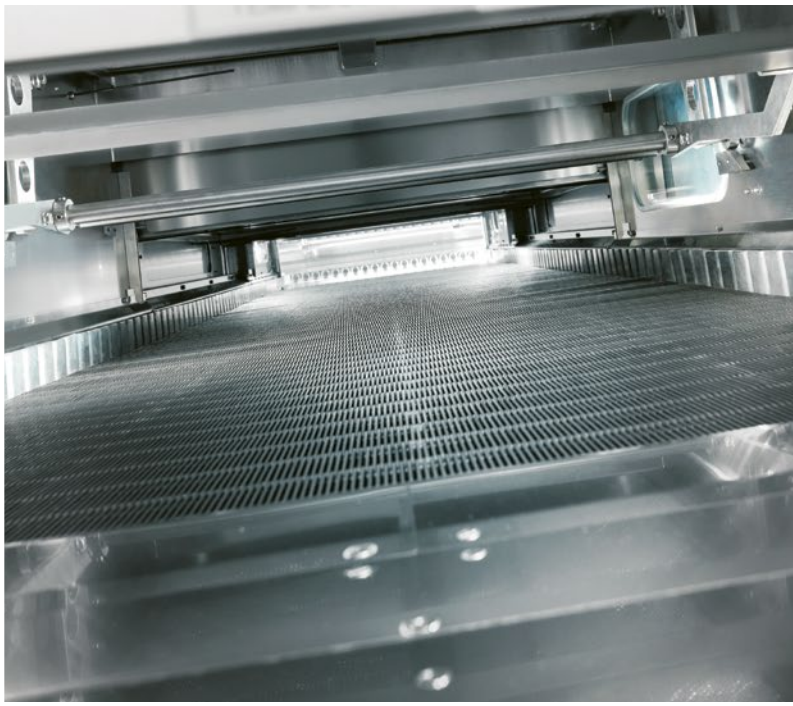
Located at the Bologna-based IMA Life facility, the Isotech Research & Development Laboratory comprises a microbiological laboratory and isolator pilot room where the sterility assurance team works alongside engineers to conduct customer-required tests, improve the isolation systems and determine even shorter and more appropriate VPHP decontamination cycles. This increases decontamination process efficiency ensuring aseptic production quality in regulatory compliance. Tests are performed using highly sensitive instruments, also in collaboration with Italian universities and with major industrial measurement companies.

LAB4LIFE LABORATORY

Located in Tonawanda, NY, at the IMA Life North America facility, the Lab4Life Lyophiliser Process Development Laboratory features a certified clean room, analytical support laboratory, formulation and filling capabilities, and full-size freeze-drying equipment to support pharmaceutical and biopharmaceutical development. A specialised team provides expertise in process development, computational modelling, scale-up, equipment characterisation, and technology transfer, and focuses on aligning product requirements with process capabilities and equipment design to ensure robust and efficient manufacturing solutions. The team also pioneers the development of innovative solutions in continuous freeze-drying, PAT tools, AI-aided equipment monitoring and digital twins.

Washing and depyrogenating

Based on years of research and in-depth experience, IMA Life provides a complete range of equipment for washing vials, ampoules and bottles. A series of external washing machines completes the range to meet the growing demand for decontamination of filled containers. The sterilisation and depyrogenating tunnels are designed to satisfy any production requirement and are suitable for all applications; available both in the standard and dry heat sterilisation versions. All IMA Life washing machines and depyrogenating tunnels can be integrated in complete isolated lines and respond to any production requirement while top-level technology allows any kind of application.

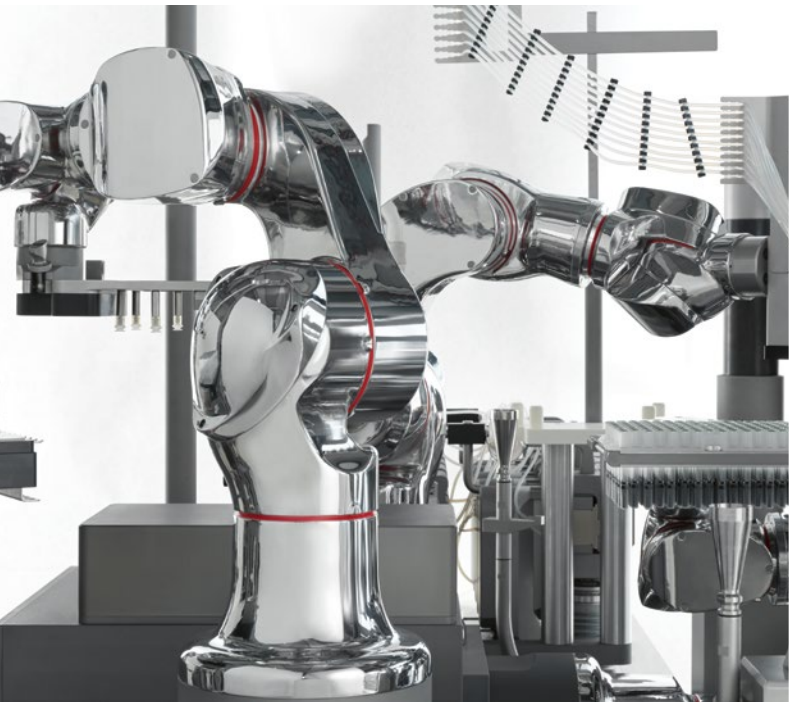


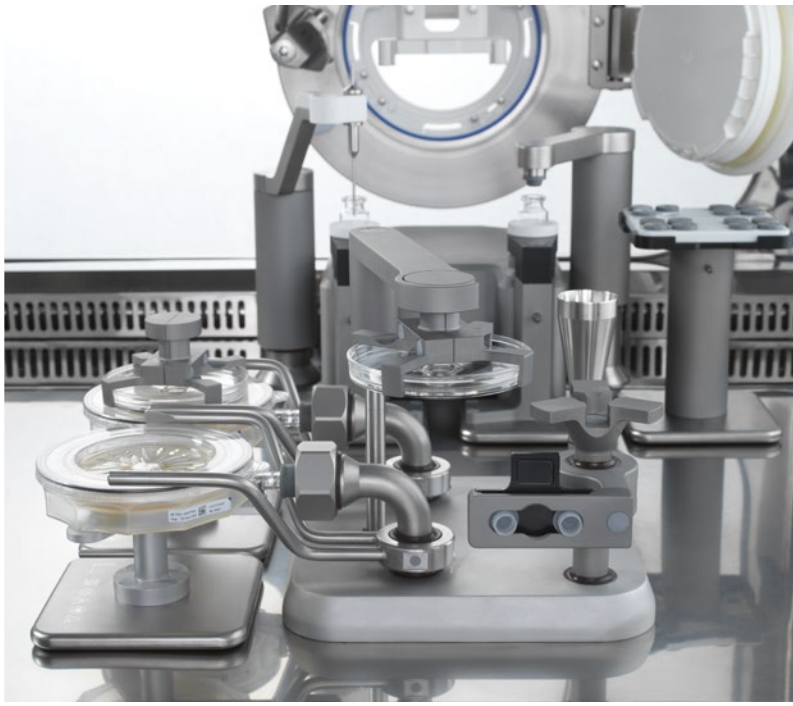
The **HYDRA** linear and the **VEGA** rotary series of washers have been created after many years of research and development focusing on container decontamination for injectable drugs. They are designed according to the cGMP guidelines and feature the highest quality standards required by the pharmaceutical industry. The use of a recycled water loop allows for an important WFI consumption saving for customers, while granting high cleaning performance and pyrogen reduction.

The **BLUE GALAXY** series of depyrogenating tunnels responds to any production requirement. Top-level design technology allows use in any kind of application. Easily integrated into lines handling highly toxic compounds or equipped with isolators, they ensure dry-heat sterilisation of the cooling zone. Thanks to a fully automatic unloading procedure, they achieve a >log3 endotoxin reduction.

Aseptic processing of RTU vials, syringes and pre-capped cartridges

In today's rapidly evolving market, flexibility and high performance are key for leading pharmaceutical companies and CDMOs. Managing a wide array of product types and packaging formats—such as vials syringes and cartridges—is essential. Injectable drug manufacturers must not only comply with strict aseptic processing standards, but also adopt strategies that accelerate time-to-market. IMA Life can supply advanced solutions from highly specific small-batch scenarios and cell & gene therapy-focused manufacturing, to high-speed machines designed for large-scale production of pre-filled syringes.



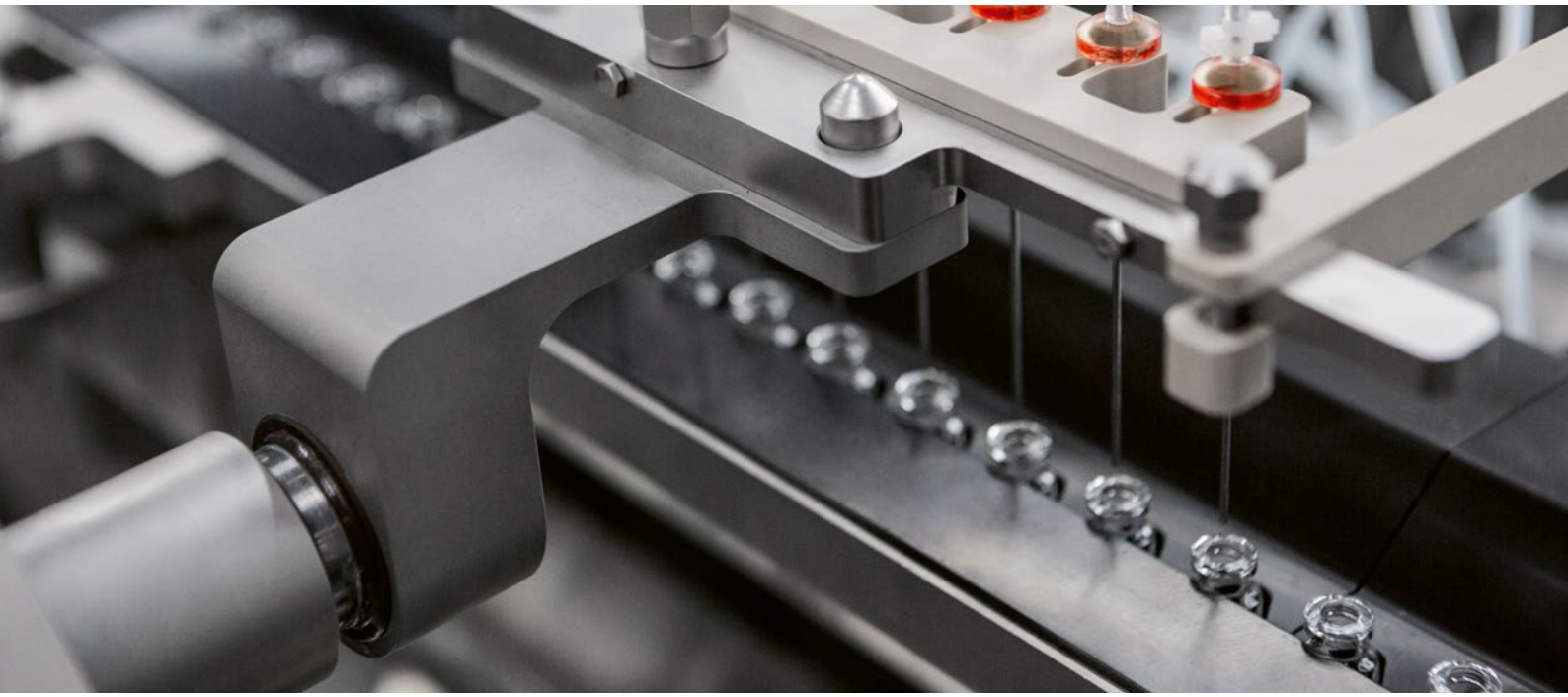


INJECTA and **STERIFILL RS** fill-finish solutions for pre-sterilised Ready-To-Use syringes, vials and pre-capped cartridges handle pre-oriented components in tubs/trays as well as sterilised vials from the depyrogenation tunnel, allowing high process flexibility and adaptability. Built to manage medium production batches they feature advanced robotic technologies, in-process check-weighing and address the need to enhance productivity for injectable drugs. Doubling the robotic capacity, **INJECTA 36** reaches up to 36,000 units/hour and satisfies the growing need to reduce the time to market of vaccines and key pharmaceuticals. Integrated downstream, **DETECTA**, the ultimate high-speed inspection unit ensures plunger presence detection and single non-conformity rejection.

TILE-X, IMA Life's ground-breaking innovation in the field of fill-finish processing for small batch production is designed to respond to Annex 1 requirements and is ideal for limited batches of high-value products (ATMPs and cell & gene therapies) in a completely gloveless, isolated environment. TILE-X extends the concept of modularity, unprecedented in the aseptic fill-finish process. Based on magnetic levitation technologies, TILE-X enables frictionless component handling with zero risk of particulate generation.

Aseptic vial and ampoule processing of liquid drug products

Medium- and high-speed filling solutions that comply with GMP Annex 1 requirements for sterile injectable drugs and ophthalmic products, developed thanks to research into fluid dynamics and rigorous design details ensuring maximum product protection in all aseptic filling environments. IMA Life machines also provide layout flexibility thanks to their compact, ergonomic design. Statistical and 100% IPC of filled weight along with advanced CIP/SIP units allow the machines to reach high product quality standards. Capping can be performed either downstream or by a directly integrated module, for which a separate containment area is foreseen.



The fundamental characteristics of **XTREMA** respond to the industry's stringent technical requirements of vial filling, and with its flexible and ergonomic design it assures complete integration of modular equipment, and can feature multiple filling systems (liquids & powders) to be used alternatively within the same machine frame. 100% check-weighing system at 600 vpm and anthropomorphic robotised nozzle carrier.

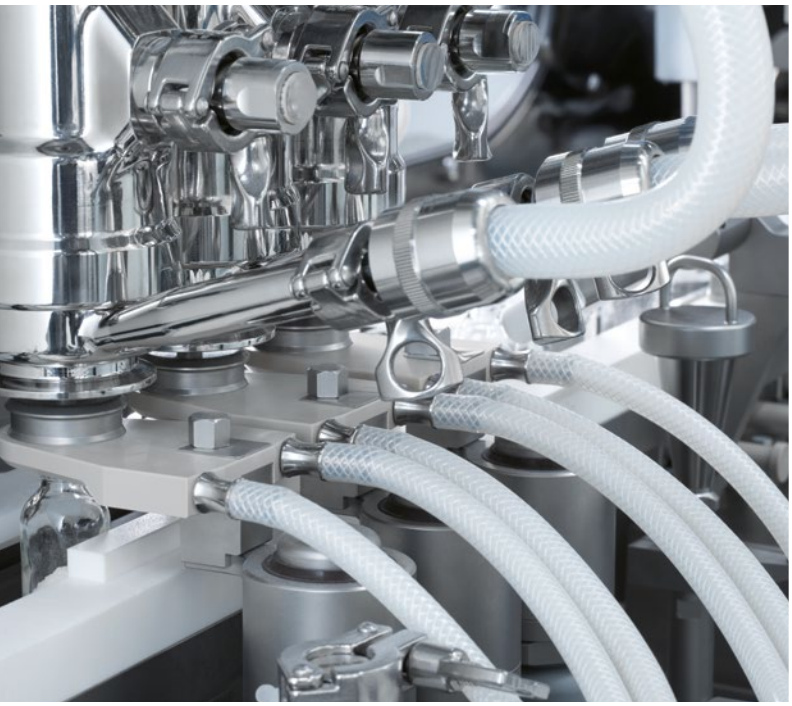
SMART 300 is the answer to the increasing demand for even more flexible and versatile liquid processing solutions with short start-up times, easy changeovers and a high degree of automation. Particularly suited to medium to high-batch production, configured to handle glass and plastic vials within the SVP filling range, the machine is completely servo-driven and can reach up to 300 vpm while ensuring 100% IPC of all filled vials. **SMART 300 LV** (Large Volume) configuration offers a wide filling range, from 20 to 500 ml (LVP), combining accuracy, repeatability and flexibility for batch changeovers and CIP SIP operations.

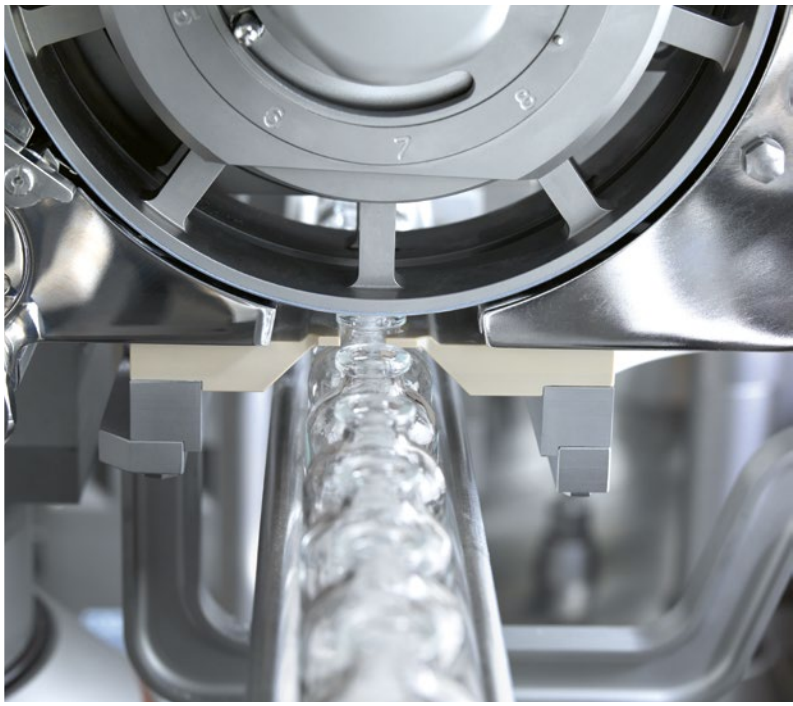
LYNE 300 is a high-speed closing machine for vials and bottles handling up to 30 packaging types on one unique machine. Able to process any assortment of pharma and parapharmaceutical products on the same machine (ophtalmics, oral solutions and suspensions, nasal sprays, etc.), it can apply screw or pressure caps, alu-PFP caps, screw or snap-on nasal spray pumps with or without dip tube onto glass and plastic containers and can handle all types of innovative eye drop packaging types.

The longstanding experience in the development and production of capping machines for vials has been channelled into **ALU**, a rotary capping machine reaching medium-high speeds (up to 600 vpm) particularly suited to sealing aseptic products. It can be installed in classified areas, in conventional sterile rooms or under isolation technology. Various types of controls are available to check crimp quality and flip-off cap colour. A coding unit and camera vision system reads and checks data.

Aseptic vial processing of powder drug products

With over 50 years' experience, IMA Life leads the field in powder microdosing. Machines feature positive in-line transport, preserving safety and handling requirements, and cover all production speeds and dosage type requirements. The range includes powder microdosing machines for small, medium and large batches, as well as both vacuum pressure and auger type powder dosing technologies. Up to three dosing units can be fitted to dose up to three different powder types in the same vial. High dosing accuracy is a distinctive feature of IMA Life machines, which can also be equipped with a 100% weight control system (IPC) capable of detecting net weight, even for each single dose.



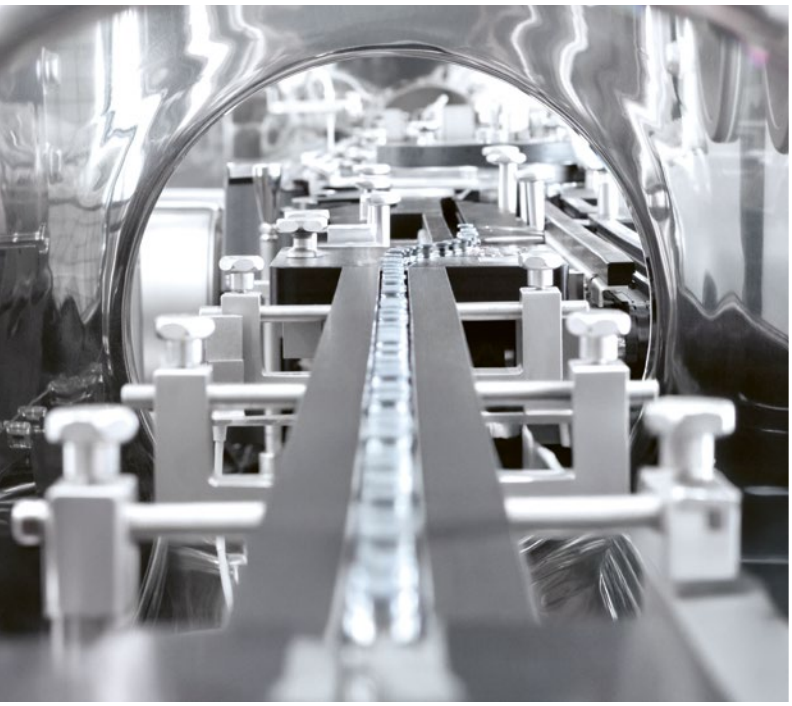


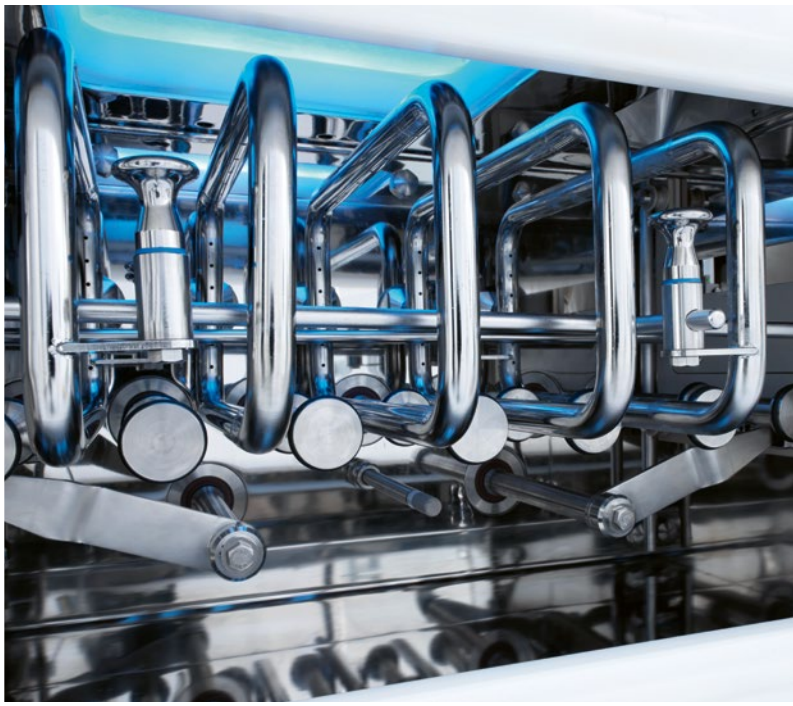
The new **SMART 300 PWD AUGER** rises to the challenge in high-potent drug processing and ensures accurate in-place sterilisation by means of Cleaning-In-Place and Sterilisation-In-Place (CIP SIP) of the auger dosing system . The CIP SIP technology allows maximum sterility assurance and avoid the risk of residual toxicity and cross-contamination between batches. Perfectly suited to isolation technology, the machine processes at speeds of up to 300 ppm and can simultaneously dose two different types of pharmaceutical powders inside the same vial.

The **XTREMA PWD** Series is equipped with a consolidated vacuum-pressure filling system and positive intermittent in-line vial transport system. Up to three dosing units allow the individual filling of different types of powders into the same vial with 100% IPC at full operating speeds of 400 vpm. Perfectly suited to isolators and cRABS for powder containment, the machine has a very slim design, with controlled temperature and humidity.

Isolation technology and integrated solutions

Isolation technology is the preferred system for achieving maximum sterility assurance in fill-finish processes. Recent guidelines and the newly approved Annex 1 (EU GMP) strongly recommend the use of isolators as the best containment solution to reduce contamination risks in aseptic areas where critical fill-finish process steps take place and parts come into direct or indirect contact with the sterile drug product. Isolators reduce cleanroom classification requirements, avoid operator-related hazards and, when used together with automated or robotic systems, simplify operations. The IMA Life range includes isolators for liquid and powder lines and for lyo loading/unloading systems. IMA Life has in-depth experience in cross contamination control and of the risks associated with the handling of potent and cytotoxic compounds.





IMA LIFE INTEGRATED SOLUTIONS combine automated filling systems for liquid or powder products with isolation technology to minimise direct human intervention in the processing area. The use of isolation technology on filling machines offers economic advantages as well as operating benefits while assuring greater product sterility. With unlimited modular layout configurations, IMA Life's isolated fill-finish solutions ensure the necessary versatility to adjust the production process to customer needs, enhancing line performance up to 600 units/min. with 100% IPC. Incomparable flexibility and advanced robotic technologies are used, via accurate No-Touch-Transfer methods, to manage several toxic and biological risk products.

In the field of RTU material transfer, **NEBULA** is a high-speed decontamination tunnel, able to process up to six RTU containers per minute. 6-log decontamination is achieved over the entire packaging using aerodynamic containment of highly concentrated vapour phase hydrogen peroxide (HC-VPHP), thus guaranteeing excellent sterility assurance. This is the ultimate method in the category of surface decontamination technologies, with marked differences compared to the alternative e-beam technology or other decontamination solutions.

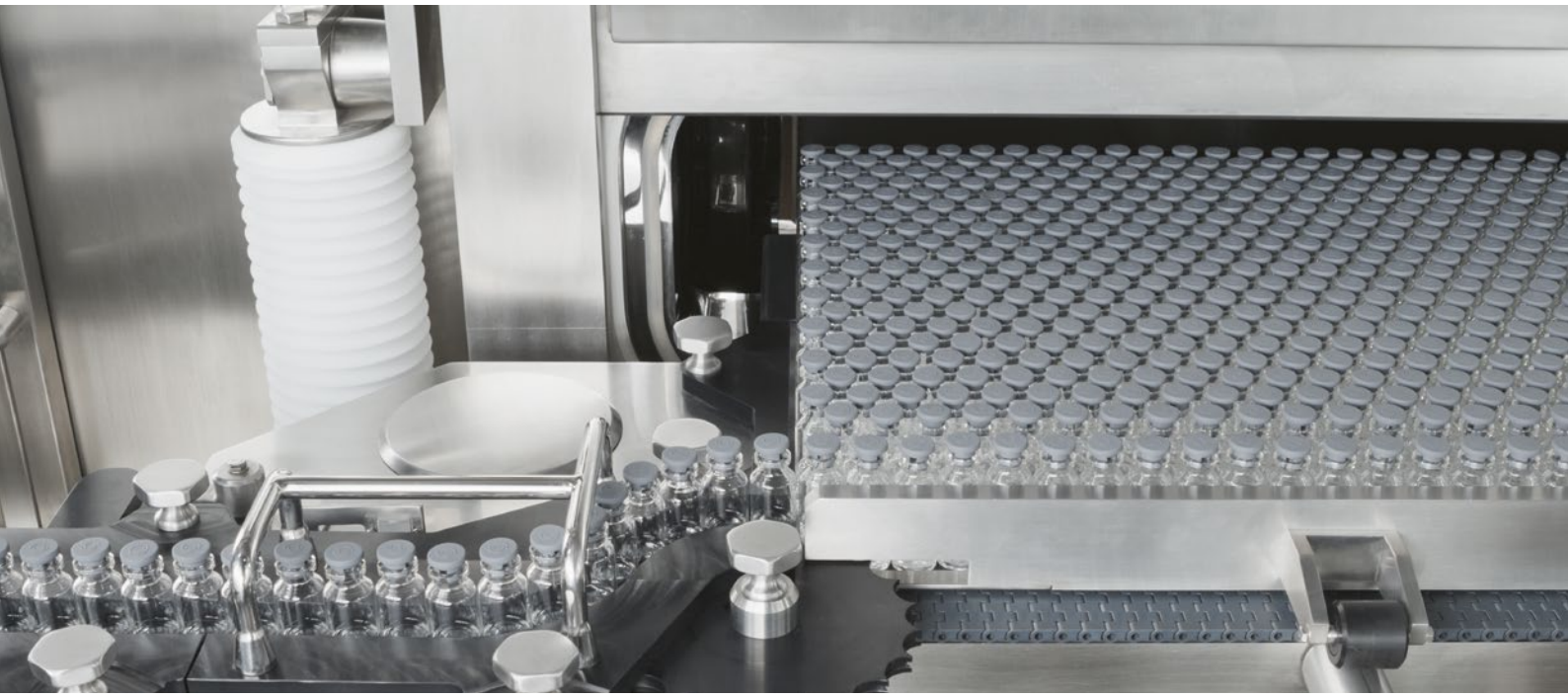
Freeze drying, and vial automatic loading & unloading

For more than half a century, IMA Life has been setting the benchmark in freeze-drying solutions for the pharmaceutical and biotech industries. Designed with a modular, configure-to-order approach, IMA Life freeze dryers can be tailored and qualified to meet virtually any requirement. Thanks to superior quality, reduced lead times, lower costs and a simplified validation process, the entire range offers a truly flexible solution for industrial lyophilisation. Featuring industrial, pilot-scale and laboratory models, the line-up spans from benchtop units to full production systems for both routine and specialised freeze-drying processes.

Current IMA Life developments include **KRYOAIR**, an innovative 100% green refrigeration technology using air as the refrigerant. This eco-friendly system is based on a series of compression, cooling and expansion cycles of air, which can be chilled to temperatures as low as -100°C. It delivers greater efficiency at ultra-low temperatures than conventional refrigeration systems and contains no toxic or flammable substances. **KRYOSEQ®** advanced controlled nucleation technology produces a sterile cryogenic "kryo fog" inducing rapid top-down nucleation in every vial, improving batch consistency and stability. KRYOSEQ® can be integrated across our entire freeze dryer range, from the largest unit down to small-scale systems or lab size machine (KRYOSEQ LAB®).

The **LYOMAX** Series offers one of the industry's most comprehensive ranges of custom-built freeze dryers. LYOMAX units are available with shelf areas from 1 m^2 up to 100 m^2, providing unmatched scalability. Each one is built with state-of-the-art vacuum, refrigeration, stoppering and heat-transfer technologies, meeting the highest technical requirements and the strictest global standards (GAMP, cGMP, FDA, etc.). **MINIMAX** is a GMP-compliant small-scale freeze dryer designed to handle the challenges of small production batches. Based on our proven LYOMAX industrial design, it offers equivalent performance in a compact footprint. MINIMAX is available in six configurations with shelf areas from 1.0 up to 3.9 m^2.

IMA Life's ongoing innovations in lyophilisation - including advanced controlled nucleation technology and eco-friendly air refrigeration - ensure the industry benefits from cutting-edge freeze-drying technologies. In response to ever-changing market demands to reduce human intervention (and hence contamination risk), we have also developed a range of automatic and semi-automatic loading and unloading systems to streamline vial handling. Solutions come in fixed, flexible, or mixed configurations, including the latest-generation DA VINCI wireless loading & unloading system as a standout option.



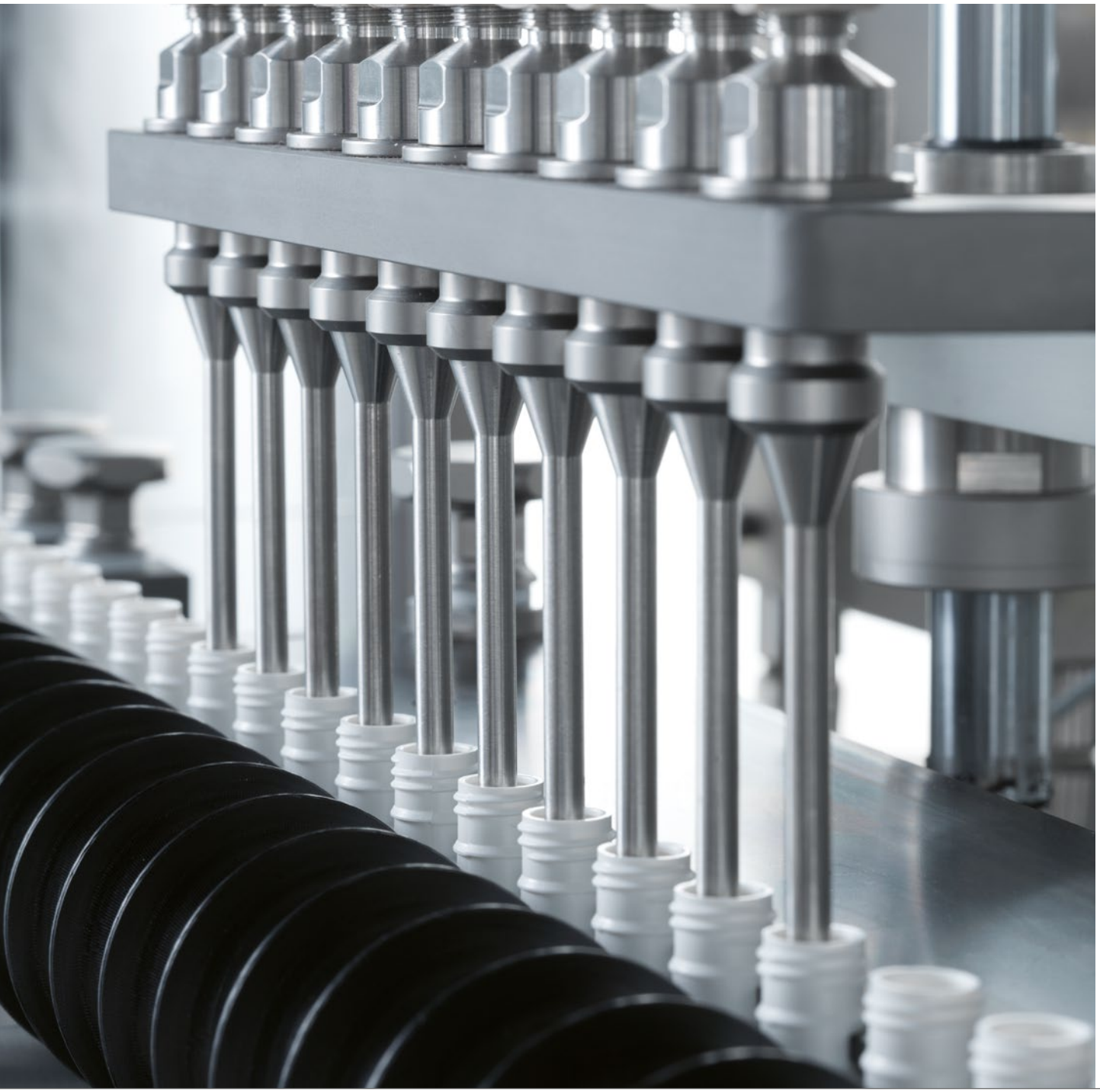
FIXED AND FLEXIBLE LOADING AND UNLOADING SYSTEMS

IMA Life's vial loading/unloading systems minimise contamination, virtually eliminating human intervention in the freeze-dryer loading process. With a compact, frameless design, these systems will fit any line layout. In a fixed set-up (**CLU** or **MINILOADER** models), vials are conveyed from the filling machine outfeed directly onto the freeze dryer shelves - one shelf or row at a time - via a loading station opposite the freeze dryer. In a flexible set-up (**TCAR**, **LAT**, **LUAT** or **UAT** systems), mobile transporter modules serve multiple freeze dryers, shuttling vial racks in and out efficiently. Seamless integration upstream with fillers and downstream with cappers is possible and systems manage up to 600 vpm in high-speed production lines.

DA VINCI represents IMA Life's innovative approach to automation, boasting a radically simplified design for vial loading and unloading. Instead of traditional fixed pushers, DA VINCI uses a stand-alone, battery-driven transfer module to move vial racks into and out of the freeze dryer. Communication with the machine is fully wireless, and all moving components are built into the loader's base plate. Absence of protruding rails or results in an extremely compact footprint and easier aseptic integration. DA VINCI is one of IMA Life's future-oriented solutions that enhance performance while safeguarding product quality, patient safety and sustainability.

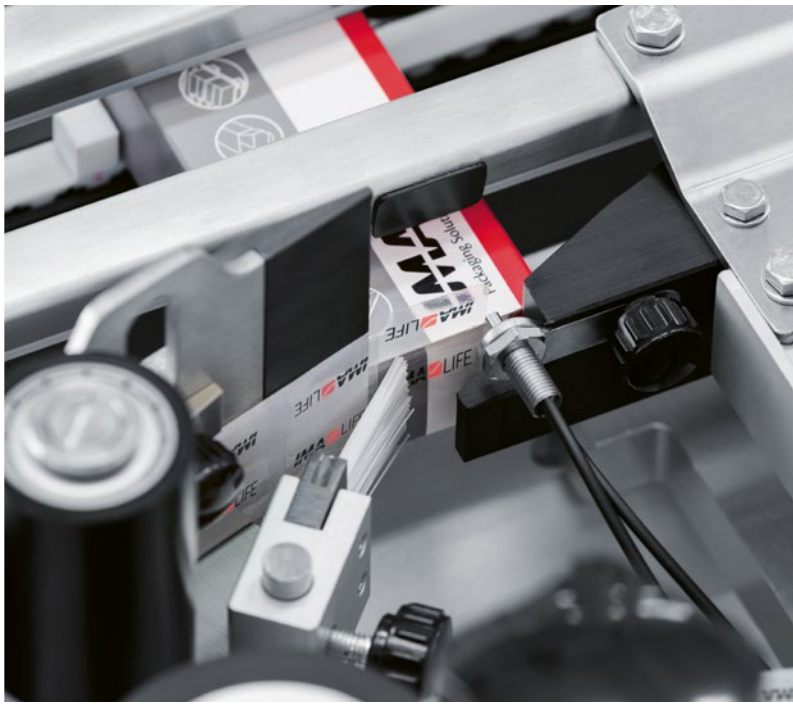
Non-aseptic vial and bottle filling and closing for liquid and powder drug products

IMA Life also provides solutions for non-sterile products processed in non-aseptic environments. Fillers for non-aseptic products can dose countless different types of liquids. Machines dedicated to single-dose solutions and macrodosing of powders for syrup preparation complete the range. All equipment handles plastic and glass containers and can apply a huge variety of closure types. Robust, efficient and safe, these machines are capable of producing under extreme load conditions, ensuring high-output requirements. Designed to work as stand-alone units or as part of integrated lines under RABS technology, these filling and closing solutions ensure flexibility, modularity and reliability.



Labelling and Track & Trace for vials, bottles, BFS and cartons

The IMA Life production range includes a vast array of linear and rotary labelling machines for vials, ampoules, cartridges, syringes, bottles, blow-fill-seal containers, pens, containers with irregular shapes and cartons. Supplied in stand-alone versions or as an integral part of complete packaging lines, they can apply any kind of self-adhesive labels (wrap-around, front, rear or both sides) on standard or irregularly shaped plastic or glass containers, as well as vignette and tamper-evident sealing on both aeroplane style and reverse tuck cartons. Thanks to the configuration flexibility of the operative groups, the labelling machines can fit overprinting devices and camera vision systems to read and check data.



Boasting speeds of up to 800 containers per minute, **SWIPE** applies labels to vials, cartridges and ampoules with maximum precision. Significant configuration freedom lets you opt for a simplified set-up to optimise cost and layout efficiency. Adapting to your needs rather than limiting your performance, SWIPE is swift, built for today and ready for tomorrow. **HYPER** applies self-adhesive labels to both sides of oval, square or rectangular bottles, vials and cylindrical containers with unusual shapes. Versatile and modular by design, this solution, which can be fitted with up to 4 heads, is ideal for high-speed labelling and handles outserts, booklets and hanging labels.

Using up to three labelling heads for application on three sides of the carton, the **SENSITIVE AP400** Series features several models, from the most compact version to those equipped with 100% weight control and selection of every single carton. Topmost reliability and the ability to install different kinds of printing systems and state-of-the-art control units are factors addressing the mass serialisation of pharmaceutical products, aimed at ensuring the safety and traceability of each single product back along the entire supply chain. All machines are optimised to respond to all Track & Trace requirements for packaged products.

The value of safety

Protecting your products is our job. IMA Safe has inherited IMA's esteemed knowledge and technology, the only manufacturer that offers complete process solutions with machines for mixing and preparation of liquids and creams, bottle cleaning, primary and secondary packaging for the pharmaceutical, nutraceutical and cosmetic industries.

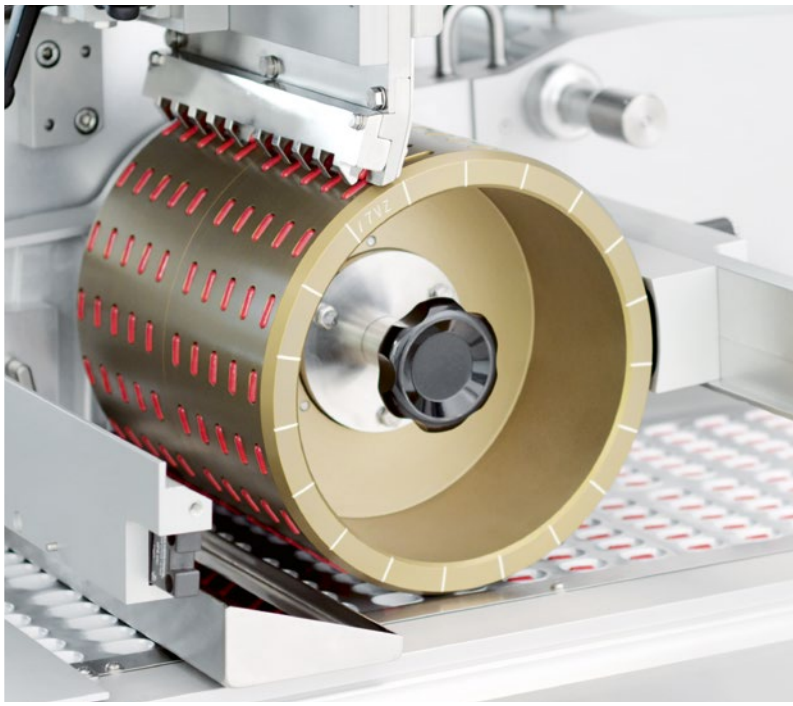
Our machines incorporate the latest developments in technology, electronic and mechanical engineering and are designed to ensure high production efficiency and low maintenance at the same time. A result we have achieved thanks to our unceasing research, professional standards and highly qualified personnel.

IMA Safe division includes the production range of IMA Safe Swiftpack, IMA North America (IMA Safe Nova), Omas Tecnosistemi, IMA Safe Comadis, Perfect Pack and IMA Safe PG.

Our responsibility matches the role of leading turnkey supplier in today's market.

Blister packaging

Thanks to the choice of our customers, we are one of the biggest and most innovative suppliers for blister technology. Our growth is based on innovation we have developed together, and thanks to this, we offer today the widest range of blister machines in the world, from the clinical trial blister machines to the super high-speed ones (1,300 blisters/minute), with or without integrated cartoners (500 cartons/minute).
A specific department is devoted to the design of dedicated feeding systems and includes also several test rooms conforming to GMP guidelines for those products under controlled environmental conditions.



The **GIANT** family of blister-packaging machines handles products of any size or shape, offering complete flexibility in terms of blister formats and configurations. Covering the full speed range—from low to high output—the GIANT family is designed to meet a wide variety of production needs without compromising on performance. A key strength of the GIANT family is the IMA-patented Sombrero, the most versatile and efficient universal feeder available. Compact and operator-friendly, the GIANT family features linear workflow and full material visibility, ensuring both ergonomic operation and efficient production management. The excellence that users have come to expect is built into every model of the GIANT family.

The **C80HS** Series double-lane blister machine features an innovative design developed specifically to meet current market demands. It offers a high production capacity while maintaining exceptional operational efficiency. One key advantage is the blister recovery magazine, which minimises product rejects even in the event of downstream machine stoppages, ensuring continuous workflow and reduced waste. Moreover, the machine provides full accessibility in the connection area, facilitating easy maintenance and quick intervention. This design focus helps optimise uptime and simplifies routine operations, making the C80HS Series a reliable and user-friendly solution for high-speed blister packaging.

The **C40** Series boasts a modern design that provides complete visibility of the entire packaging process, alongside full accessibility for operators. This allows for easier monitoring and control, improving overall efficiency. Downtimes are kept to a minimum thanks to straightforward cleaning procedures and fast, simple changeovers. Furthermore, the use of well-established technology ensures reliable performance while maintaining low maintenance costs, making the C40 Series both efficient and cost-effective.

Blister feeding systems

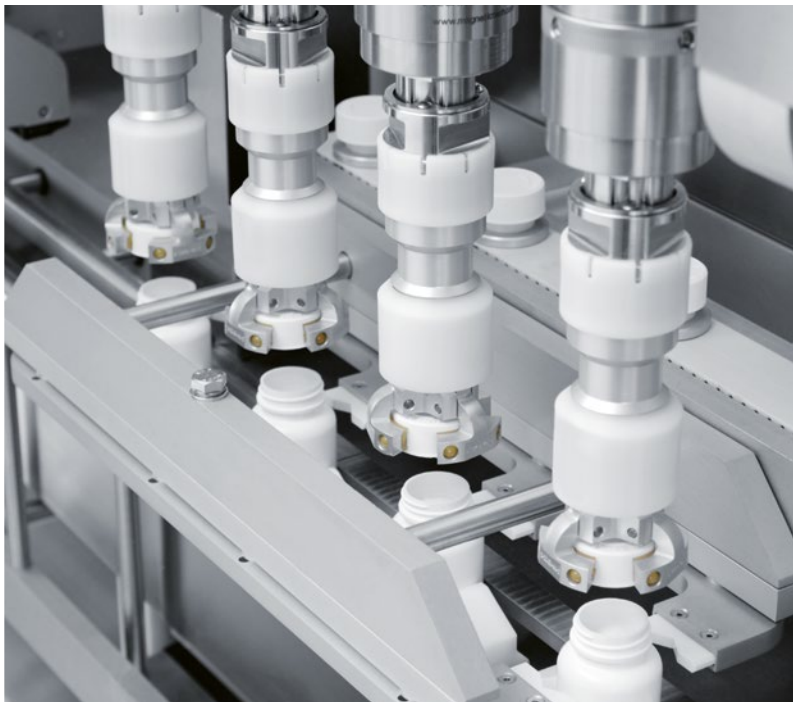
IMA feeding systems are the result of 50 years' experience in the blister packaging industry with more than 10,000 feeding units supplied worldwide to handle every kind of product and all packaging materials.
What characterises the IMA feeding systems is the total continuous motion that allows the product to be controlled and perfectly managed without trauma during the entire production process. This type of operation makes it possible to reach the highest efficiency on the market, guaranteeing at the same time extremely high speeds.
The wanted simplicity of their design is a guarantee of durability and ease of use.
Each solution is custom-designed according to the customer's product and tested several times in a dedicated department conforming to GMP guidelines under controlled environmental conditions.

Containment solutions

IMA Safe offers the advantage of being able to capitalise upon the experience of the other IMA Pharma divisions, Solid Dose and Aseptic Processing & Freeze Drying Solutions, satisfying all the requirements for containment of solid pharmaceutical products in blister packaging, with 100% in-house solutions.
Containment solutions reduce tecnicians' exposure to highly active products therefore protecting the operator's health maintaining controlled-atmosphere conditions for the product.
Moreover, IMA's patented universal feeder SOMBRERO is the unique system to reach the highest level of containment, minimising operator intervention inside the containment cabin.

Counting

IMA Safe is unique in this field, as there is no other supplier able to offer the full range of machines necessary for a counting line. From traditional slat counters up to full camera-controlled electronic machines; from flexible lines with single machines up to monobloc solutions; from desiccant feeders up to cotton inserters, it is almost impossible to find a machine that is not part of our range. The highest level of count accuracy is granted by the different counting technology solutions available (Optical sensor and E.F.S. - Electronical Field Sensor), both capable of working in difficult conditions. With thousands of machine installations in hundreds of locations throughout the world, we are, also in terms of references, the biggest player. Our IMA Safe Swiftpack and IMA North America branches, which include the IMA Safe Nova brand, have demonstrated their ability to integrate both low and high-speed lines at customer sites with well-experienced teams.

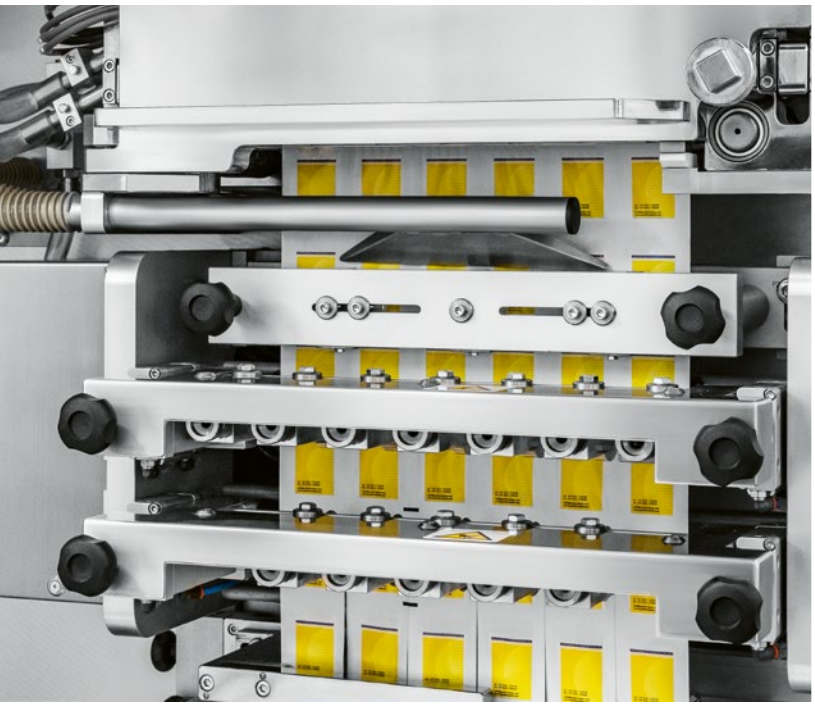


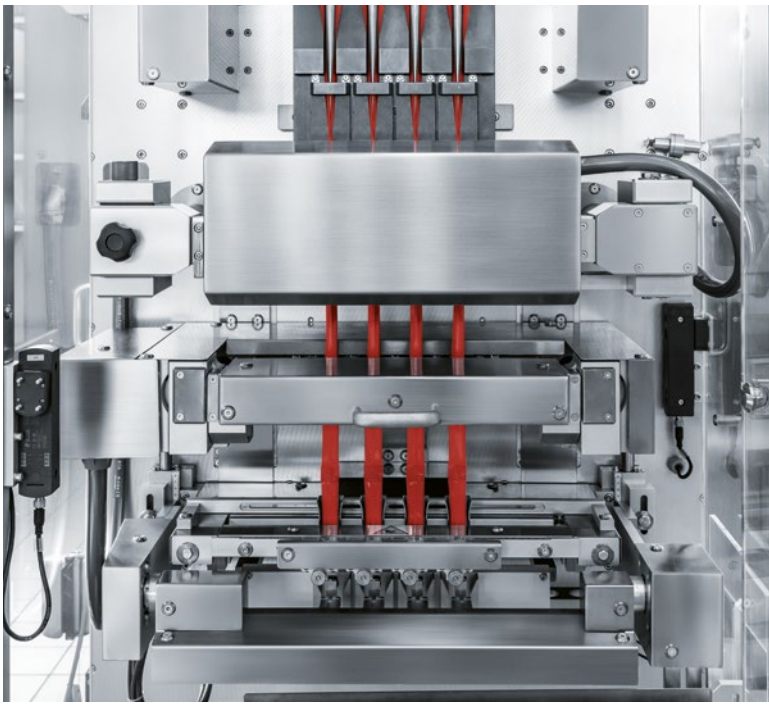
SWIFTPHARM 2 is a high-speed electronic tablet counter designed for pharmaceutical-grade accuracy and efficiency. Available in two configurations—SWIFTPHARM 2-4 and SWIFTPHARM 2-8—it reaches speeds of up to 240 bottles per minute depending on the model. The system features positive bottle transport and advanced sensor technologies, including optical and electrostatic field sensors, to ensure precise counting even in challenging conditions. Its simplified layout and integrated guard design support fast cleaning and containment integration, while requiring minimal product contact and bottle format parts. With no oil over the transport and no rear clearance needed for cleaning, SWIFTPHARM 2 delivers top-tier performance in a compact footprint.

UNILINE is a compact conveying, filling and capping system designed to form a complete counting line with a minimal footprint. Processing up to 150 bottles per minute, it integrates key functions such as container loading, desiccant and cotton insertion, counting and filling, capping and rejection. The system features automatic bottle size changeover with no need for size parts, and the balcony-style layout ensures easy cleaning and full visibility. Count accuracy is supported by advanced sensor technologies, including optical and electrostatic field sensors. Energy consumption is kept to a minimum, and the bottle transport system manages a wide range of shapes and sizes.

Sachet and Stick packaging

Sachet and stick packaging machines by Perfect Pack have been developed to meet any kind of requirement from the pharmaceutical market.
All the machines in the portfolio work with intermittent systems and can be equipped with a wide range of dosing systems for any product and accessory to pack. Thanks to the advanced technology we have developed, we are able to guarantee a high level of production efficiency and extreme ease of changeover and cleaning. Both sachet and stick packaging machines can be easily connected with different downstream machines. Different layout solutions are available thanks to the CLA stacking and transfer systems, between primary and secondary packaging.





Excellent versatility, high performance and easy to synchronize with downstream equipment are the hallmarks of the **BETA** Series vertical intermittent-motion sachet machines. With up to 10 lanes, the machine can process as many as 700 sachets per minute. Multiple dosing systems can be installed for alternating productions and, in the case of powder packaging, a double auger can be used to dose different powders into the same sachet. High-quality, first-class looking sachets are produced as the seals are made during the stationary phase.

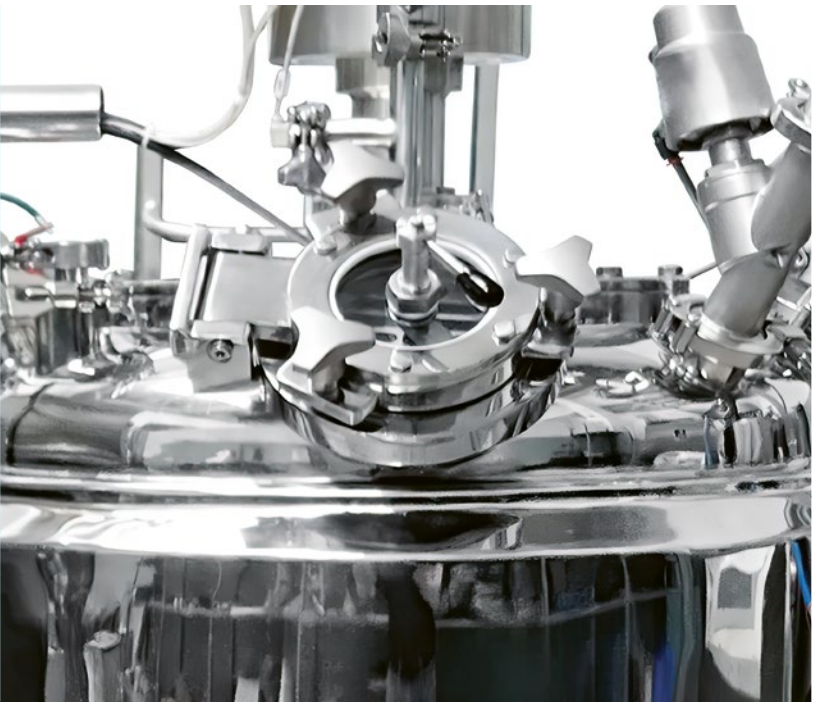
The **STICK** Series is available in various configurations to handle pasty, liquid, powder, and free or non-free-flowing products. Dual dosing systems and double augers allow for flexible production, including dosing different powders into the same stick.
The sealing system features vertical and horizontal units with easy-access openings for fast maintenance and cleaning. Quick size changeovers in both length and width make the STICK Series efficient and user-friendly across multiple applications.

Liquid mixer and turboemulsifier

Achieving uniform and high-quality blends is critical in pharmaceutical production, where ingredient consistency directly impacts efficacy and stability. Whether working with powders, liquids, dense or semi-dense consistencies, selecting the right mixing technology is key to ensuring homogeneity, preventing segregation, and optimising downstream processing. With solutions tailored for everything from small-scale formulation to high-volume production, Omas Tecnosistemi advanced mixing and turbo-emulsification technologies provide the precision and flexibility needed to meet the demands of today's pharmaceutical market.

Equipped with a variety of blade types, **MIXER** Series is designed to maintain constant product movement and prevent settling. Suitable for any liquid consistency, these mixers improve both product texture and process efficiency by reducing mixing times and enhancing overall quality. Available in a range of capacities from 3 to 5,000 litres, they provide flexible solutions for diverse production needs.

The **TURBOMIX** undervacuum turboemulsifiers with homogenizer are specifically designed for dense or semi-dense formulations. Employing high shear energy, our turboemulsifiers are designed to achieve fine particle dispersion and consistent product quality. Ideal for challenging formulations, they ensure optimal mixing results and represent a critical tool in high-demand processing applications. TURBOMIX can be offered with a wide range of tank capacities, ranging from 3 to 5,000 litres.



DISSOLVER dissolves powders into liquid products, and is particularly suitable for powdery pharma ingredients. The mixture is kept in circulation with a stirrer to obtain a homogeneous product. Dissolvers can be combined with TURBOMIX or connected directly to the filling machines.

For the efficient processing of fat-based products like waxes and pastes, **PRE-MELTER** ensures uniform melting and temperature control. Available in various sizes and configurations, it can be integrated with a turbo-mixing system or directly into the production line, enhancing process reliability and ensuring optimal preparation of fat-based ingredients.

Automatic filling solutions

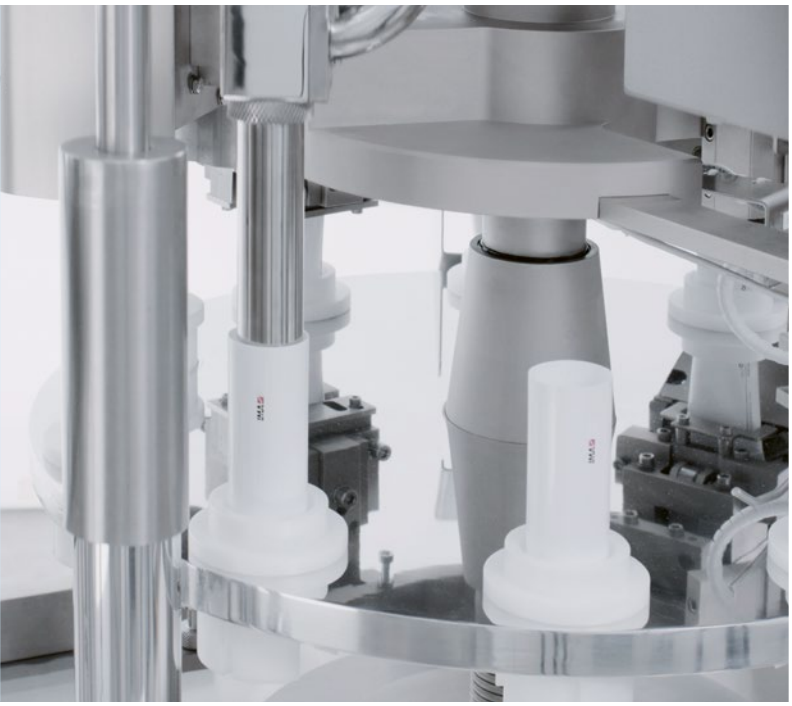
Omas Tecnosistemi offers a wide and complete range of automatic filling solutions, designed to meet the unique demands of the pharmaceutical industry. The portfolio includes monobloc filling systems as well as stand-alone filling machines, ensuring the utmost flexibility in production line integration. Every solution is developed with a customer-centric approach, engineered to adapt to any production requirement. With the ability to handle a broad speed range and an extensive variety of formats, shapes, dimensions and materials on the same machine, Omas Tecnosistemi equipment ensures uncompromising versatility. Machines are suitable for a wide variety of products, including syrups, ophthalmic solutions, sprays and oral/nasal inhalers, creams and ointments, as well as powders and granulates, making them ideal for complex and diversified production needs.

The **GRC-BLOK** Series is a compact monobloc solution that integrates continuous-motion filling and capping operations. Designed to optimise production flow, it offers precise control and high flexibility across a variety of container formats. Ideal for both liquid and viscous products, the GRC-BLOK ensures accurate dosing and consistent sealing. Its space-saving footprint, combined with reliable performance, makes it suitable for a wide range of production environments and operational conditions.

The **IN-LINE FILLER** is available in configurations from 2 to 12 lanes, suitable for liquid, viscous and creamy products, including hot filling applications. Designed for versatility, the line can be equipped with a removable docking filling station to enable fast product changeovers and easy cleaning operations. Depending on production speed, the system can be integrated with automatic capping solutions from the G-KAP, GRC-KAP, or LINE-KAP Series, ensuring seamless operation and high efficiency across a range of applications.

Tube Filling

Comadis launched the first of a successful series of tube fillers in 1970. Since then, more than 3,000 machines have been supplied all over the world, as a result of continuous technical commitment coupled with a rewarding operating mentality - always oriented to customer feedback and satisfaction.
Since the beginning, Comadis tube-filling machines have been marked by simplicity in changeover sequences, quick disassembly of contact parts and an intuitive operator interface. Handling between 1,500 and 15,000 tubes per hour, the machines are the result of ongoing improvements and technological progress. Over the years, continuous growth has provided Comadis with extensive knowledge in the field, gained through its relationship with customers, both large and small. Proud of such a reputation, each new project is approached with this legacy of experience.

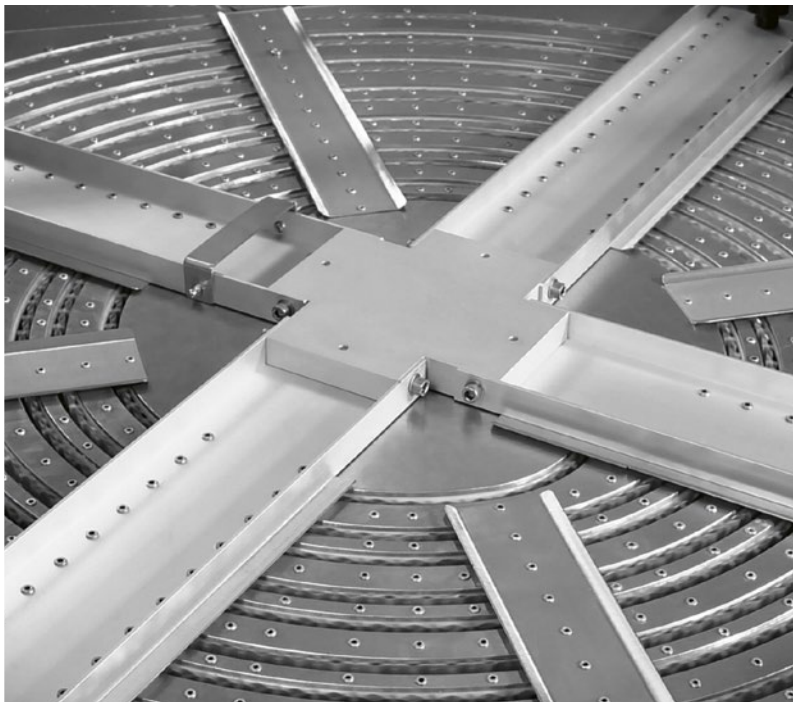


CT240 is a high-speed tube filler designed for pharmaceutical, cosmetic, chemical and food products. Capable of producing tens of thousands of filled tubes per shift, it features a triple-nozzle configuration that has been continuously refined over the years to ensure maximum output. With proven performance across multiple applications, the model offers a wide range of configurations—including robotic tube unloading—and benefits from Comadis' renowned easy changeover system, combining high productivity with outstanding flexibility.

C1060 is an automatic tube filler with a wide choice of automatic feeders. Features include an easy-to-disassemble dosing pump and a diving nozzle with positive shut-off valve and air-blow cleaning. Change of size parts is easy and tool-free, and closing heads can be interchanged quickly. Customised designer seals can be executed on request. Both smart and effective, this tube filler delivers great performance with a small footprint that integrates the electrical cabinet.

Suppository packaging

The suppository and ovule sector demands advanced technological solutions to ensure safe, effective products that meet the highest pharmaceutical standards. IMA Sarong stands out for its expertise and experience, offering modular and flexible production lines designed to meet a wide range of needs—from small-scale manufacturing to high-volume industrial production. Through precise forming, dosing, and cooling processes, IMA Sarong's solutions deliver efficiency, quality, and adaptability for the global market.



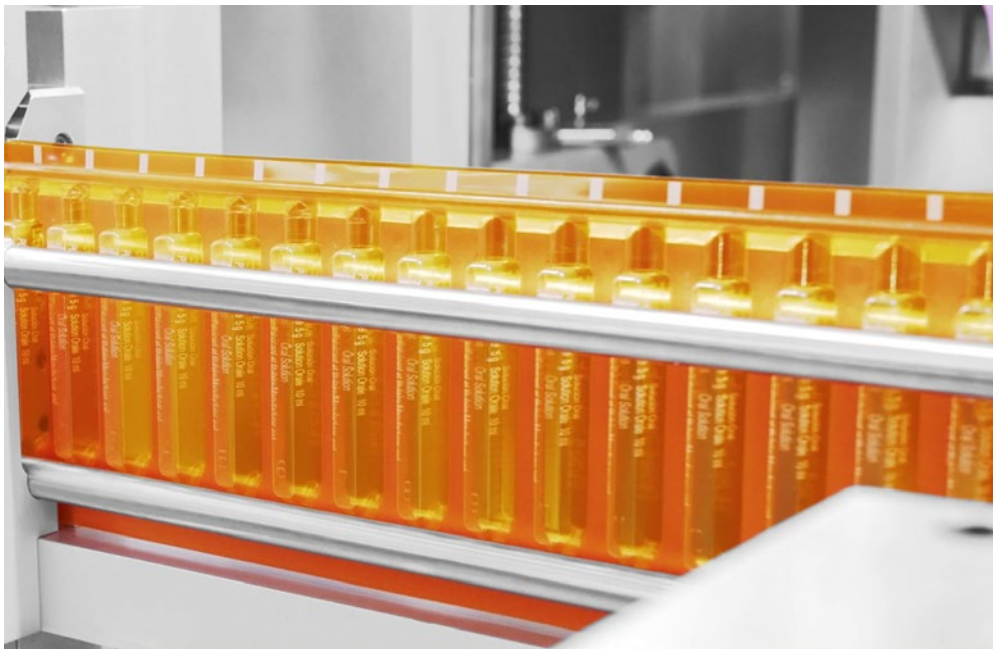
The **SAAS Series** ensures high-speed production, reaching up to 30,000 suppositories or ovules per hour. Its modular forming system allows the use of interchangeable stations for plastic film (thermoforming) or aluminum foil (cold forming). Precision sealing guarantees uniform bonding for consistent peeling force. Product dosing is managed through a volumetric pump controlled via HMI, ensuring accurate filling with minimal waste. The advanced spiral-path cooling tunnel with filtered air ensures complete and efficient solidification of the product.

The **SL 6** modular line offers a flexible configuration tailored to a customer's production needs. Designed for efficient, continuous operation, it streamlines the entire suppository manufacturing process. An ideal entry-level solution, the SG 6 machine allows you to start production using pre-formed cavities at a lower investment. Each unit is interchangeable and can be purchased independently, enabling phased implementation. As production demands grow, the SL 6 line can be easily expanded—offering a truly scalable solution for long-term success.

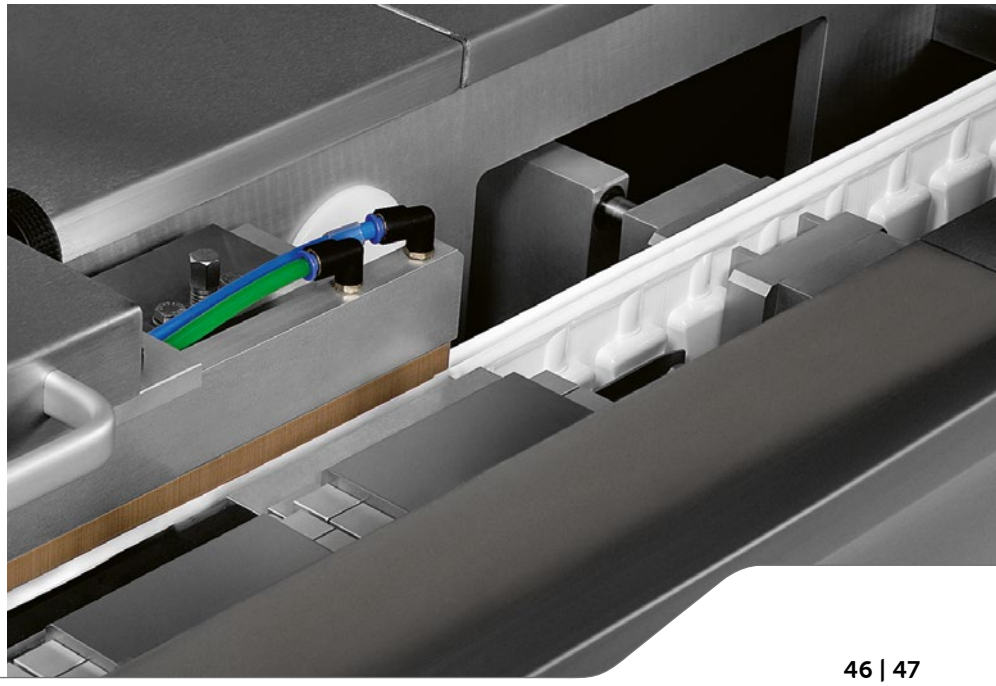
Unit dose packaging

Unit dose packaging for pharmaceutical syrups and vitamins requires expertise and IMA Sarong boasts not only targeted experience, but also a wide range of solutions ensuring efficiency, reliability and adaptability to diverse market needs. Meeting high technological standards, the form, fill & seal machines for unit dose packaging applications are the result of over half a century of experience on the international market.
These advanced machines use a continuous plastic film band, unwound from two reels. Each strip is thermoformed inside the forming station using compressed air and heat, then sealed together. The filling process is executed vertically through a volumetric pump, followed by precise sealing and cutting into strips of pre-set container quantities.

Suitable for various shapes and types of packs, **SD** guarantees high sanitary standards, operating under laminar flow to ensure elevated hygienic conditions. Efficient with easy size changeovers, easy to clean and with a processing area that is separated from the mechanical components, SD is ideal for a wide range of liquid and semi-liquid products.

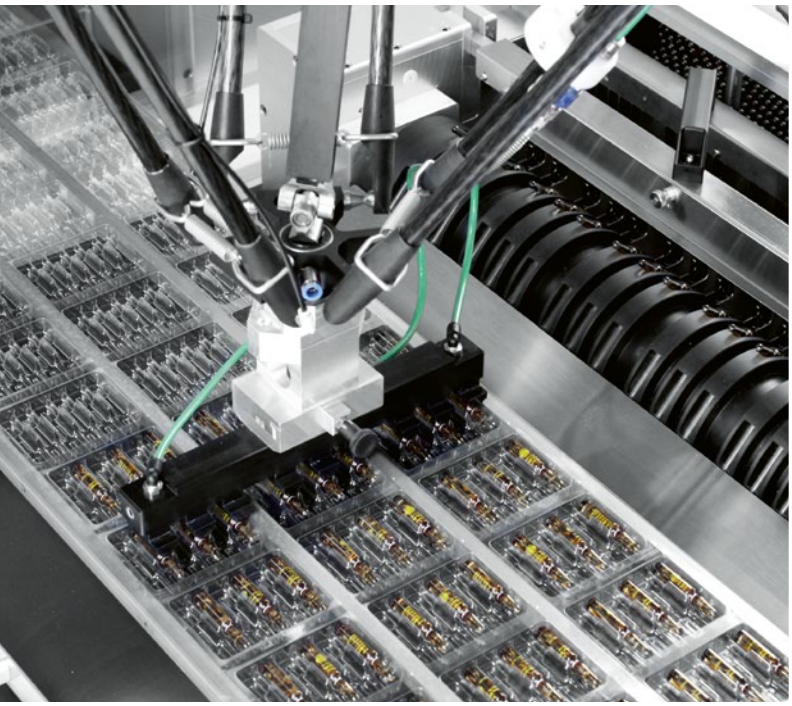


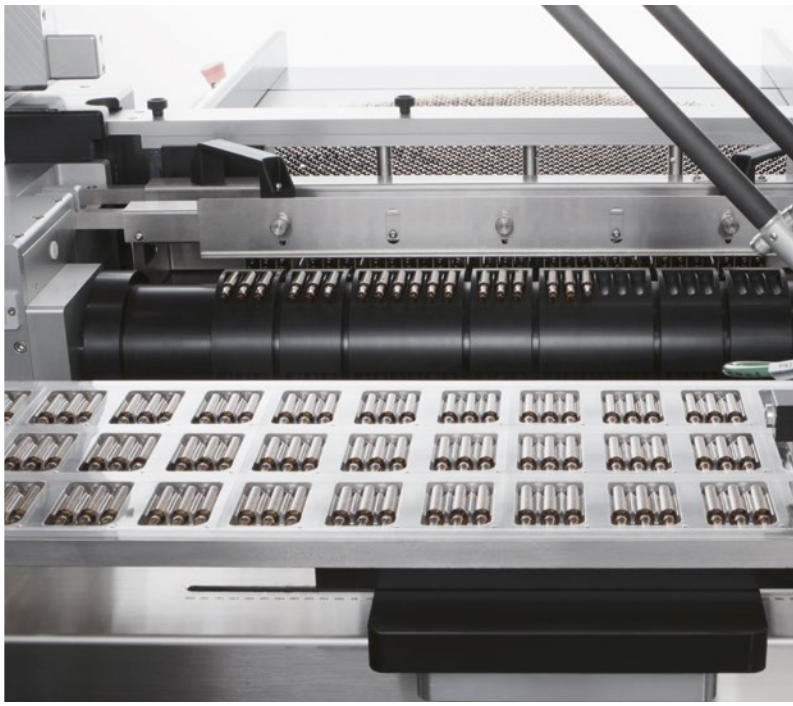
The **FP 40** seamlessly blends traditional engineering with cutting-edge mechatronics and GMP compliance. Its proven versatility handles a wide range of packaging types, offering full customisation to meet diverse product needs. Designed for maximum efficiency, the FP 40 ensures quick, effortless changeovers and minimal waste.



Tray packaging

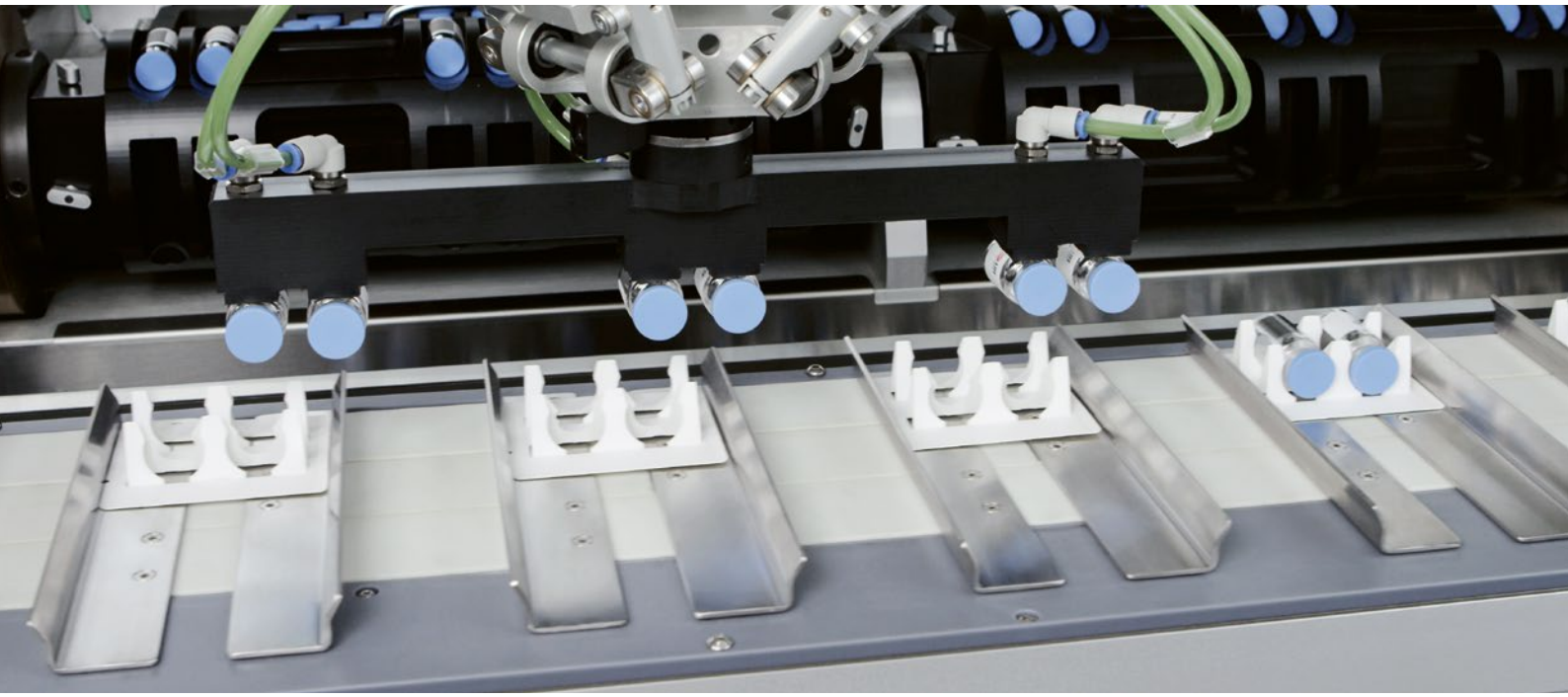
The IMA Safe range of thermoforming machines and paper tray packaging lines reaches high speeds while preserving design and ergonomics, making them easy to use.
The secondary packaging of parenteral products such as vials, ampoules, syringes, insulin pens and inhalers is a highly complex process in terms of managing product, packaging and production flexibility. IMA Safe has invested in innovation to develop technologies that can meet all these requirements.
Working with IMA Safe means you can count on a trusted partner, capable of providing comprehensive support in finding the most suitable solutions to safely pack your product.





The **C360** is the most compact deep-draw thermoforming machine in its class, while still offering maximum customisation to meet specific production requirements.This flexibility is made possible by advanced IMA Safe technology, which integrates robotised systems in the most critical areas—namely, product feeding and connection to the cartoner—ensuring precision and reliability. In addition to high productivity, the C360 delivers excellent efficiency. Size changeovers are quick and straightforward, thanks to a reduced number of format parts, minimising downtime and simplifying operation.

The deep-draw thermoforming machine **RED250**, equipped with a robotic handling system, ensures careful and precise manipulation of a wide variety of products, placing them into trays with a broad range of configuration options.The integrated A46 cartoning module features fully automatic size changeover in just 10 minutes, giving the operator time to complete other tasks required for the next production batch. Designed to meet evolving production demands, the RED250 line offers a flexible and high-performance solution, combining precision, speed and ease of use.



The **PAPER TRAY** feeding unit, compatible with any IMA Safe cartoning machine, gently picks trays from the magazine and places them onto the conveyor at high speed. IMA's robotised systems handle a wide range of products and accessories, including mixed items in the same tray via multiple feeding units. Products can be loaded into the paper tray in a horizontal position (with cusps) or vertically, depending on packaging requirements. The unit is fully accessible, with minimal changeover requirements.

Cartoning

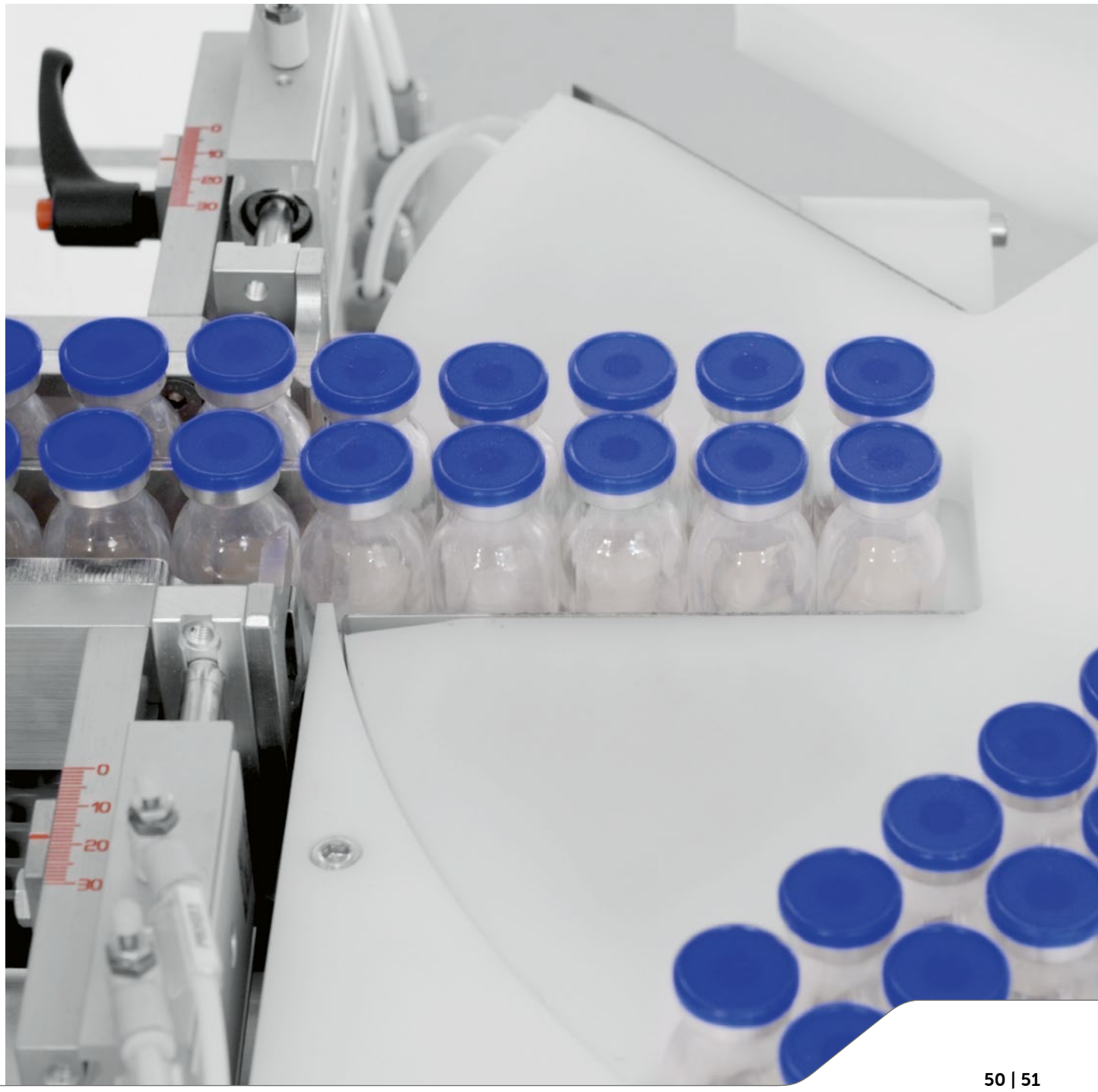
Integration of state-of-the-art servo technology and robotics have enabled IMA Safe to achieve leadership in this field. Efficiency, cleanability and accessibility have influenced the design of the new-generation cartoners. Furthermore, we have responded to the request for fast size changeover procedures for all horizontal and vertical cartoning machines at speeds from 60 to 500 cartons/minute. Finally, the success of cartoning is related to the feeding system, where IMA Safe provides more than just the standard solutions currently available, leveraging our access to developments designed for applications for Pharma, Food, Cosmetics and Confectionery.

The **DYNAMICA** Series multipurpose continuous-motion cartoner is available in different versions, tailored to product specifications, carton sizes and production speeds. It delivers maximum versatility in terms of applications, infeed systems and carton dimensions. Designed with maximum ergonomics in mind, the line ensures optimal working heights for the carton magazine, product flow and leaflet folding unit. Compact yet easy to operate, DYNAMICA combines intuitive setup with user-friendly management.

VERTICARE P is a vertical cartoner designed to handle vials, syringes, ampoules, bottles and irregularly shaped medical devices. This modular machine can integrate multiple feeders for products, booklets and various accessories. Capable of operating in either intermittent or continuous motion, depending on the application, it offers high flexibility. The ergonomic design features eye-level product flow and full accessibility from both front and rear sides. Products can be managed with or without pucks. The robotised infeed system—with dual heads, grippers, or vacuum—ensures precise product orientation inside the carton.

Carton feeding systems

Flexibility as a key feature: IMA Safe is the market specialist in terms of carton feeding systems for pharma and non-pharma fields. A wide range of solutions, that includes both mechanical and robotised feeders, has been developed to facilitate modular feeding concepts, necessary to meet the market's needs as well as product variants that are increasing over time. Many IMA Safe feeding systems are patented and provide feeding efficiency which cannot be reached by others in the market.



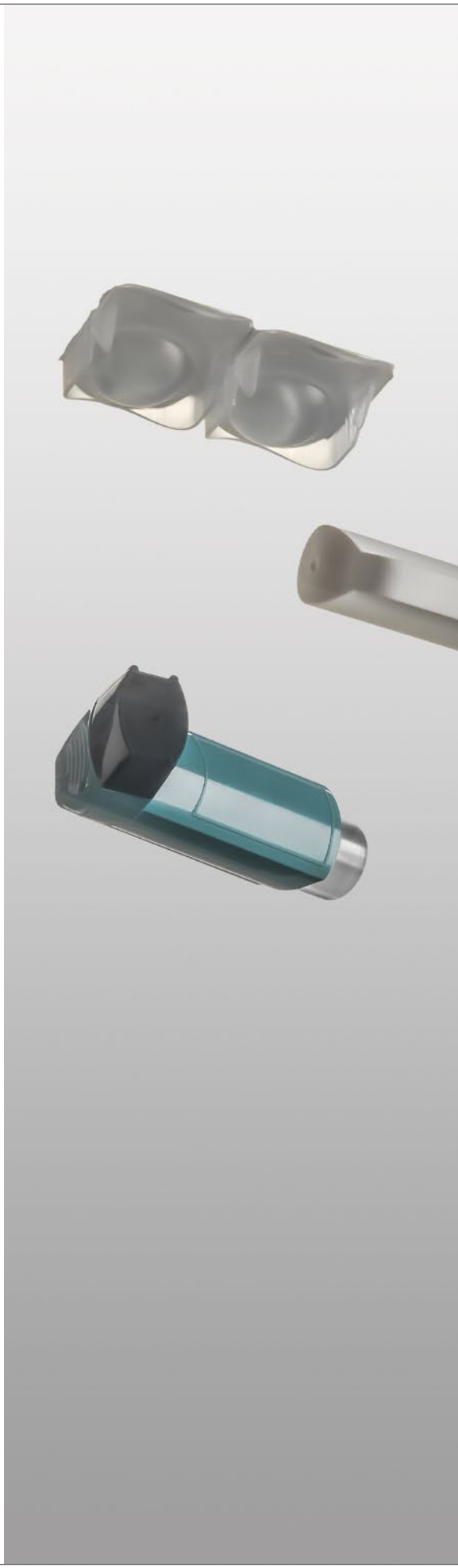
MEDICAL DEVICE ASSEMBLY & PROCESSING
Solutions

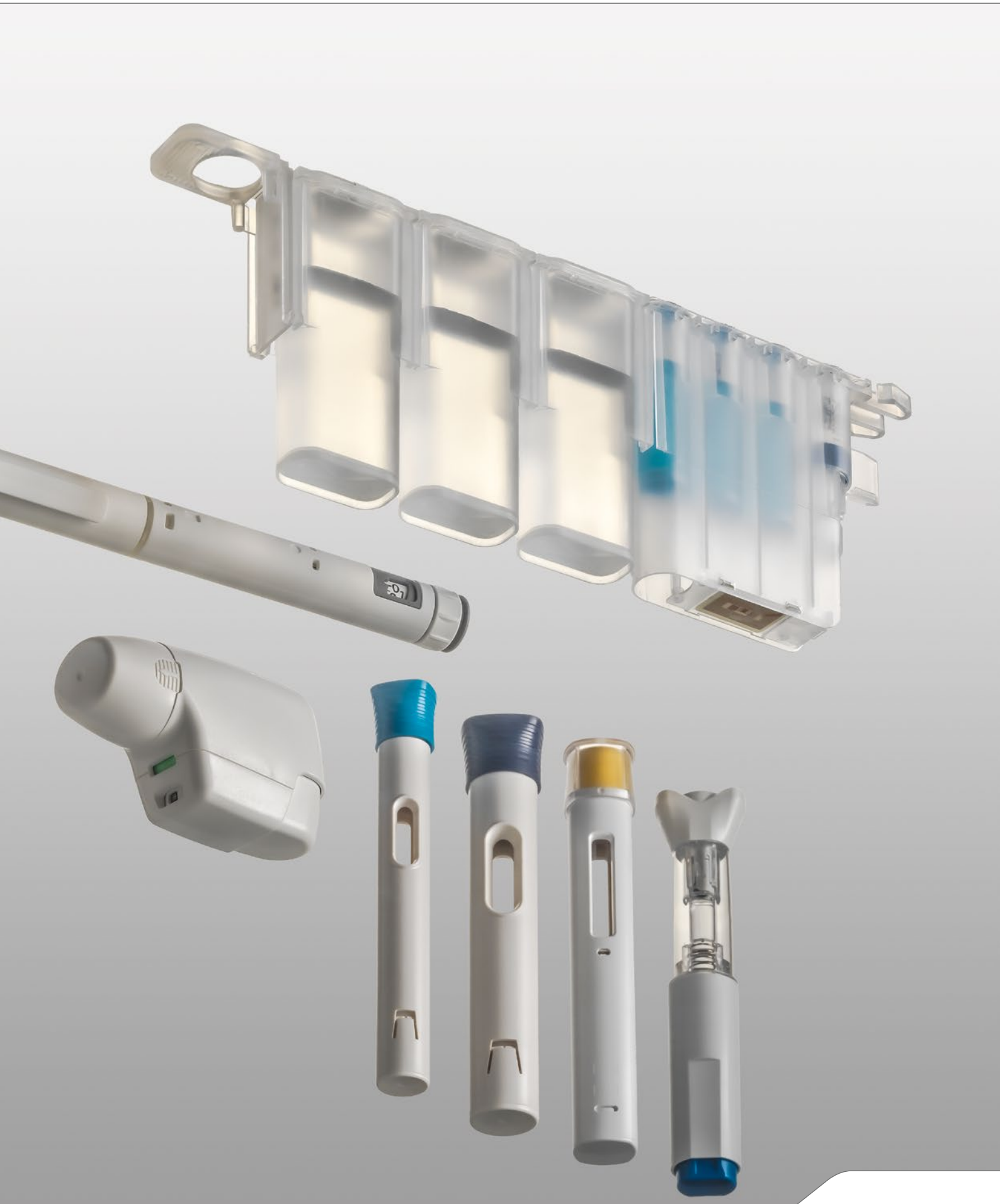
Technologies for medical devices

IMA MED-TECH is the business unit of IMA AUTOMATION, focused exclusively on medical assembly technologies. As part of the IMA Group, IMA MED-TECH leverages the group's strength and over 60 years of experience in the industry to drive innovation and excellence in automation and process assembly. With its global network of companies, IMA MED-TECH designs and manufactures advanced technology lines for the assembly of medical devices.
This business unit centralises expertise in medical technology, enhancing IMA Group's commitment to the MedTech sector.
By continuously drawing on innovative technologies and on its comprehensive knowledge of validation processes, IMA MED-TECH can provide engineered solutions that support medical device projects at every stage of product development.

- DRUG DELIVERY: Inhalers and Injectables
- DIAGNOSTICS: Point of Care and In Vitro
- WEARABLES: Delivering and Monitoring Devices
- TUBING SETS: Infusion and Extension Sets
- SURGICAL INSTRUMENTS: Sutures
- EYE CARE: Contact Lenses and Ophthalmic Inserters
- PHARMA CAPS: Child-Proof Closures and Nasal Sprayers

By leveraging the cutting-edge solutions and extensive experience of IMA AUTOMATION, IMA MED-TECH positions itself as a strategic partner for CMOs and large pharmaceutical companies, offering turnkey solutions from assembly to packaging. This integration of capabilities reinforces IMA Group's dedication to continuous innovation, higher quality standards, and sustainable production in the MedTech sector.





MEDICAL DEVICE ASSEMBLY & PROCESSING
Solutions

Custom assembly solutions for Medical Devices

With its extensive experience in the medical industry, IMA MED-TECH designs and manufactures technologically advanced lines for the handling and assembly of parts for different fields of application. Each device has its own unique characteristics, and our customised solutions are tailored to meet these specific needs, offering maximum flexibility. With a range of assembly platforms at our disposal, machine design is optimised to suit the individual requirements of assembly processes, considering production needs and space constraints within the cleanroom.

ASSEMBLA configured to handle up to 20 ppm is a versatile semi-automatic solution for low-output assembly. These tabletop or small stand-alone, semi-automatic units are used for functional builds, clinical trials and early commercial batches. They offer several key features, including compact design (optimised for laboratory use), full compliance with critical process requirements, standard machine bases, plus tooling adapted for specific devices.

ASSEMBLA configured to handle up to 40 ppm is a compact cell, designed for small batches, and which can be adapted for several devices with short changeover times. Ideal for the early stages of commercial production, with final clinical trials still underway, these semi-automatic or fully automatic machines, available depending on product complexity, use automatic processes similar to those in full-scale automated systems.

While commercial production is in full swing, **ASSEMBLA** leverages what has been learnt from previous lower-output machines so as to deliver a robust and precise, fully automatic production system. Several technologies and layout arrangements such as robotics, pneumatic, cam or magnetic and servo drives can be accommodated in order to reach the best performance. Those machines can also be linked with automatic material handling solutions to lower non-added value work from production. This is a production platform enabling high output of up to 200 ppm, integrating all our knowledge regarding the assembly of injectables.

ASSEMBLA also manages high outputs, up to 400 ppm. Dedicated machines allow pre- and final assembly of injectables. Designed for full-scale, super high-output commercial production, the line is both robust and reliable. It ensures seamless process integration, and the lean design incorporates efficient material handling, requires minimal maintenance, and consumes little energy, making it an optimal solution for modern manufacturing needs.

Standard platform for injectables

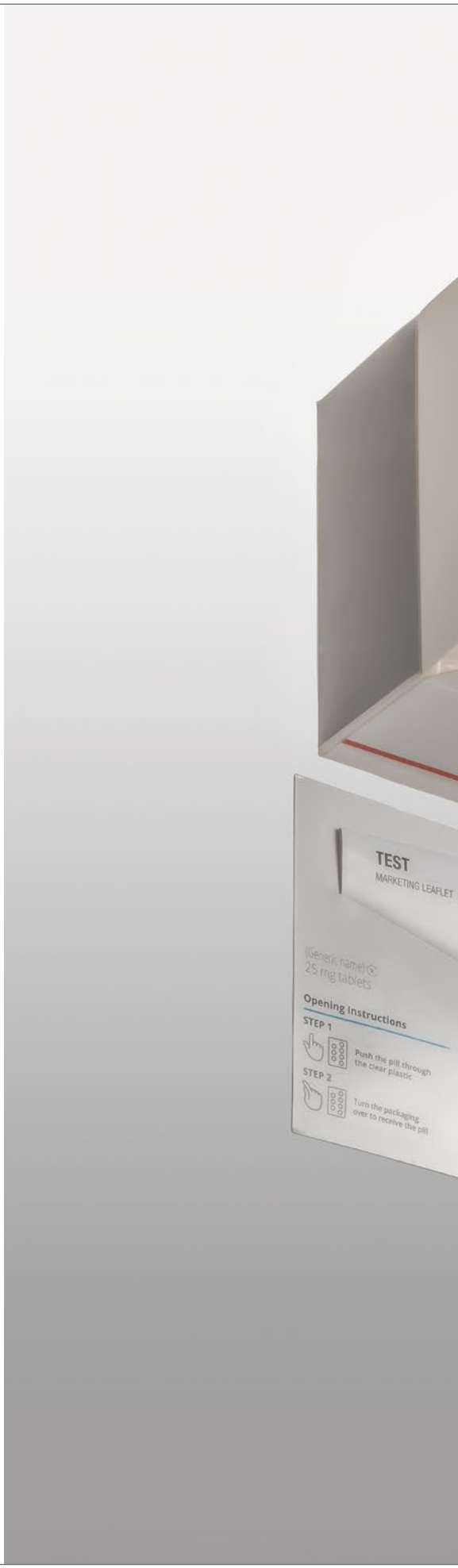
Standardised assembly platforms for injectable devices offer a reliable, high-performance solution tailored to stringent manufacturing requirements. Designed to ensure reliability, precision and traceability, these systems integrate seamlessly into sterile settings and adapt to a variety of line configurations. Modularity and scalability enable the optimisation of time, space and costs, providing an efficient approach to advanced assembly processes.

X-PEN is the standard and modular solution designed by IMA MED-TECH for pre- and final assembly systems for pens and autoinjectors. The X-PEN platform offers a variety of assembly machines designed to meet the needs of different production environments, from manual to fully automated systems. Starting with the **X-PEN LAB** series handling 2 pieces per minute, the range scales up to 160 ppm performance. These machines provide efficient solutions for assembling standard devices with varying output speeds and levels of automation. The flexibility of the X-PEN portfolio allows for seamless integration into various production lines, ensuring high-quality results and improved efficiency, while simultaneously reducing costs and optimising space utilisation on production lines.

The new combo configuration, which enables the production of both pens and autoinjectors on the same line, maximises production floor space while minimising the need for multiple dedicated machines. Changeovers between formats are fast and intuitive, supported by recipe-based set-ups and modular tooling, further enhancing operational flexibility.

Innovative packaging solutions

To offer complete lines and appropriately respond with innovative packaging solutions to whatever needs the Pharma and Nutraceutical markets may have, it is essential to offer a vast range of solutions, provide technical expertise and work with a creative spirit.
On top of that, both personal and collective experience are essential, as well as enthusiasm, all of which make challenges the driving force of our work.
Similar, never the same.




25 mg
PUSH
TEST
company name
Push to remove tablet
Fill in the time of your daily dose:
AM PM

Wallet and sleeve packaging

Wallets are patient-friendly and improve compliance, one of today's key issues. IMA Gima provides versatile cartoning solutions for pharmaceutical products. In addition to an extensive range of turnkey solutions, based on our consolidated experience we provide a comprehensive consultancy service helping companies to create a new, smart and sustainable pack. From the design phase through to end-of-line equipment, our specialists are available to define a tailor-made solution in line with the customer's goals.

The **FTC530** Series machines are modular horizontal cartoners working from flat blanks to process a large variety of package styles, from a simple sleeve to the multi-panel wallets and other customised packages covering the needs of the pharmaceutical market. According to the specific application and customer needs, the equipment can be designed to reach medium or high speed.

Top-loading cartoning solutions

FTB TL Series top-loading cartoners feature models that cover the widest range of box sizes and styles, including tuck-in and glued flaps. Thanks to the modular design concept, these machines are extremely flexible and can be equipped with single or multiple dedicated feeding systems, allowing carton boxes to be filled with different products in the most diverse configurations. For the packaging of vials, IMA Gima has developed an innovative solution that creates entirely cardboard packages from flat blanks. While the machine folds and assembles two blanks into a grid, it picks a third blank to form the box. Subsequently, it inserts and glues the grid inside the box, preparing it to accommodate vials. In addition, our top-loading models can also handle pre-glued cartons and plastic trays for vials, syringes, and other medical devices.

IMA Gima **FTB TL** Series compact monobloc top-loading cartoners process the widest range of box sizes and internal layouts, handling a diverse array of both regularly and irregularly shaped products with high-speed output, up to 200 cartons/min.

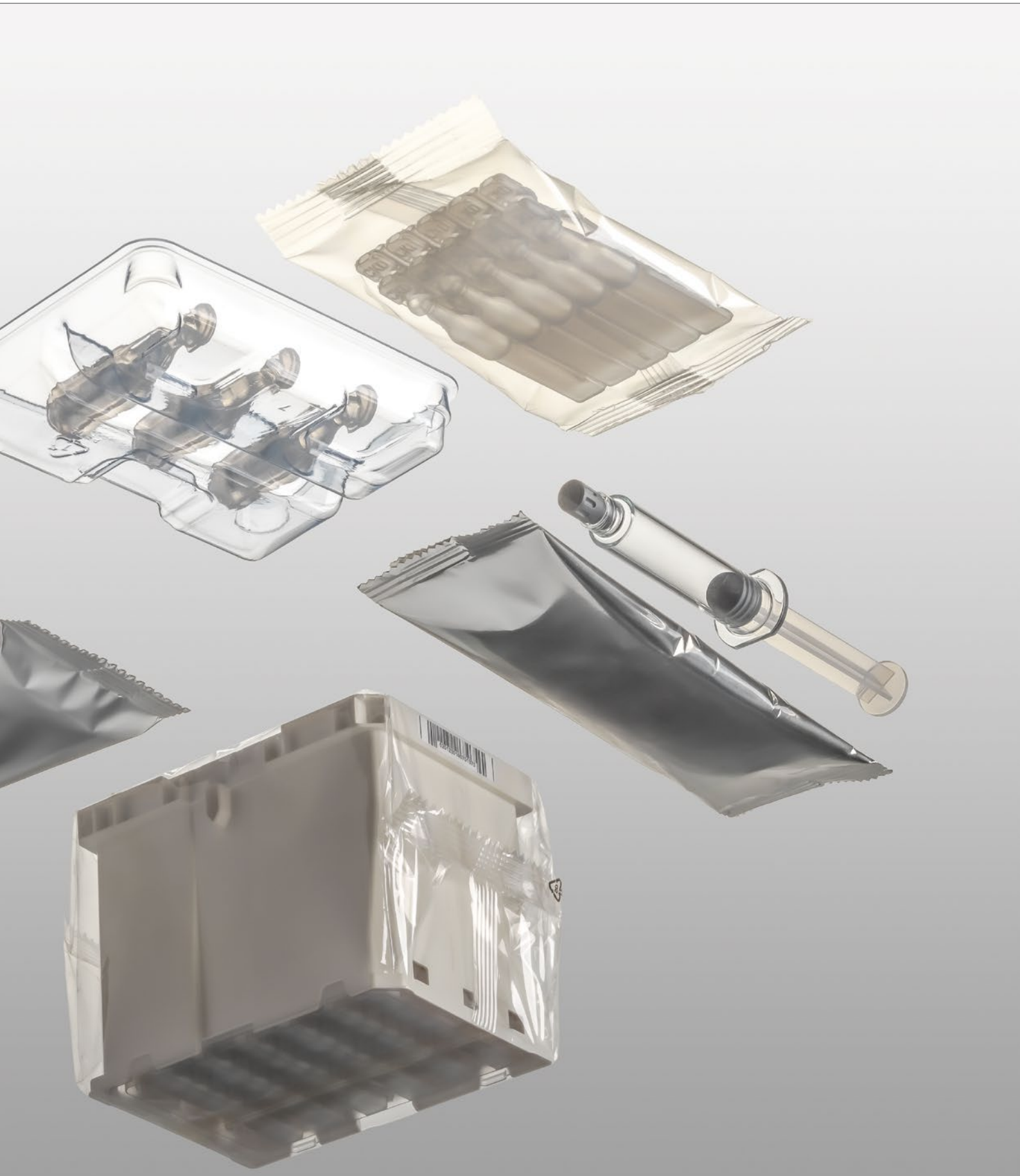
Prior to insertion, products can be arranged and oriented using dedicated handling units to achieve the desired configuration and appearance of the final carton. Specific robotic manipulating units pack products into minimally sized boxes to significantly reduce material consumption and void-fill techniques.

With fully servo-driven movement, the FTB TL Series ensures excellent production efficiency, quick size changeover and minimal maintenance requirements.

Extending the main transport system enables customers to combine different products in the same box or integrate additional feeding units (leaflet, interlayer, etc.).

The flowpack, an additional level of protection

The Pharma & Medical industry has very stringent requirements for hygiene, quality control, hermetic seals, and product tracking. To further preserve product safety and hygiene, an additional level of protection, the flowpack, is often required.
In response to the critical needs of pharmaceutical and medical device wrapping, IMA Ilapak's team of specialists have applied their 10 years of hands-on experience in this industry, gained thanks to the synergies and integrations with IMA Group companies, to design and manufacture a new dedicated range of high-speed hermetic flow-wrapping platforms.
This growth path has allowed IMA Ilapak to establish itself in this sector and to be recognised by today's market as a consolidated and reliable reality.

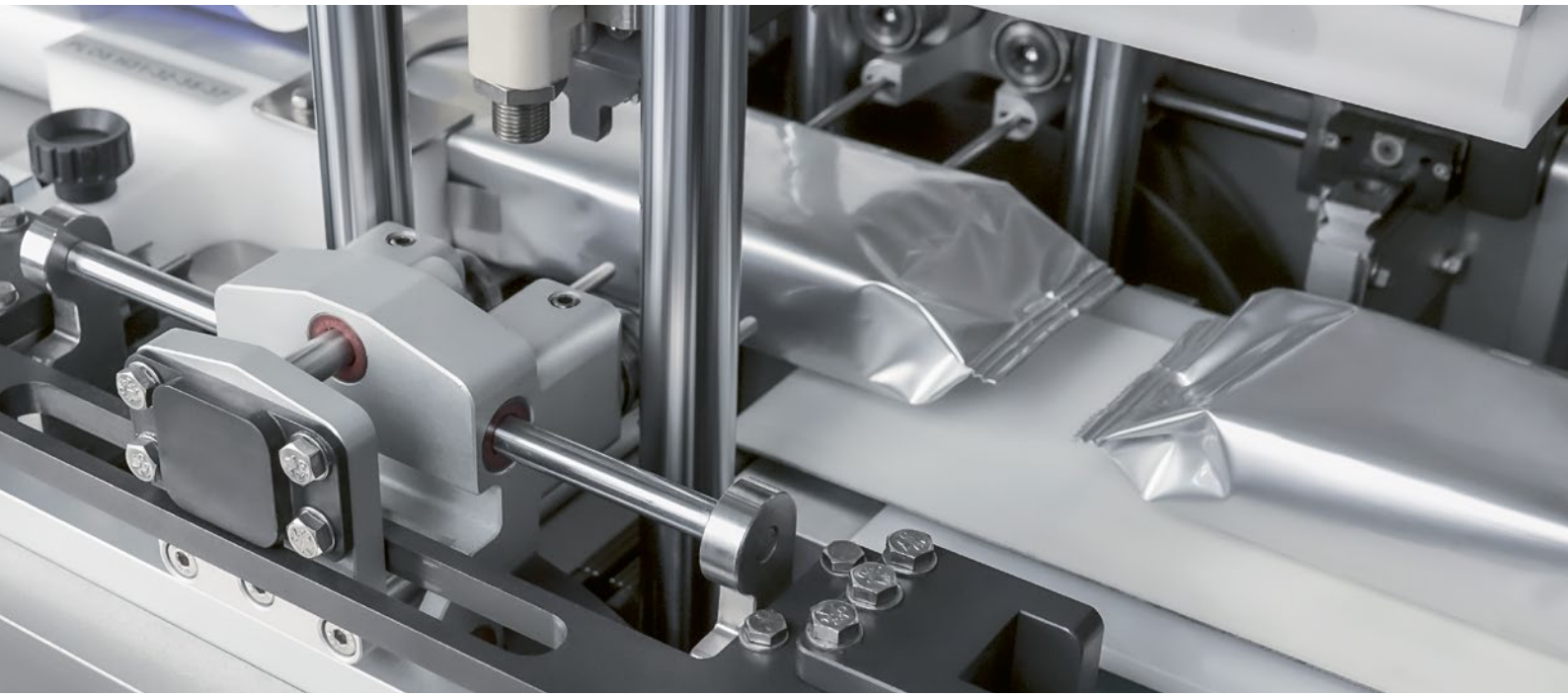


Flow-wrapping

Products ranging from blisters, BFS, syringes, inhalers, IV bags, mono-dose applicators, cartridges and medical devices, all require the highest degree of care to ensure pack integrity and ease of use. IMA Ilapak offers established and perfected systems for high-speed hermetic flow wrapping of pharmaceuticals and medical devices. Every solution is available in different configurations with an extensive range of optional add-on modules.

Launched as a brand-new flow-wrapping platform dedicated to pharmaceutical and medical applications, **PH 3000** ensures superior performance in speed and sealing tightness with complex wrapping materials such as aluminium films. The minimal footprint and the new architecture make the PH 3000 extremely compact, robust and ergonomic. Hygienic and balcony-style design allows the film and product path to remain visible and accessible at all times. This solution is featured with an in-line by-pass, containment and clean-room compliance, and also offers a wide selection of features such as printing OCR/OCV, automatic feeding and 21 CFR Part 11.

IMA Ilapak's flow wrappers can be tailored to match each customer's specific needs and deliver maximum production flexibility and efficiency at each performance level.
The heavy-duty and reliable design combined with a high level of flexibility allows these platforms to run both as stand-alone solutions and to be integrated into IMA's automatic packaging and processing lines.



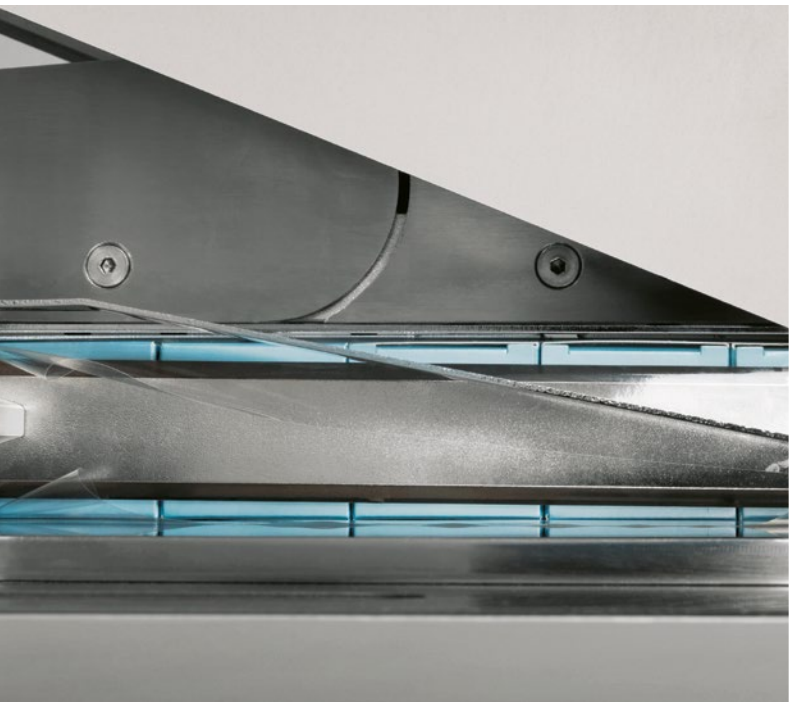
Care, attention and understanding

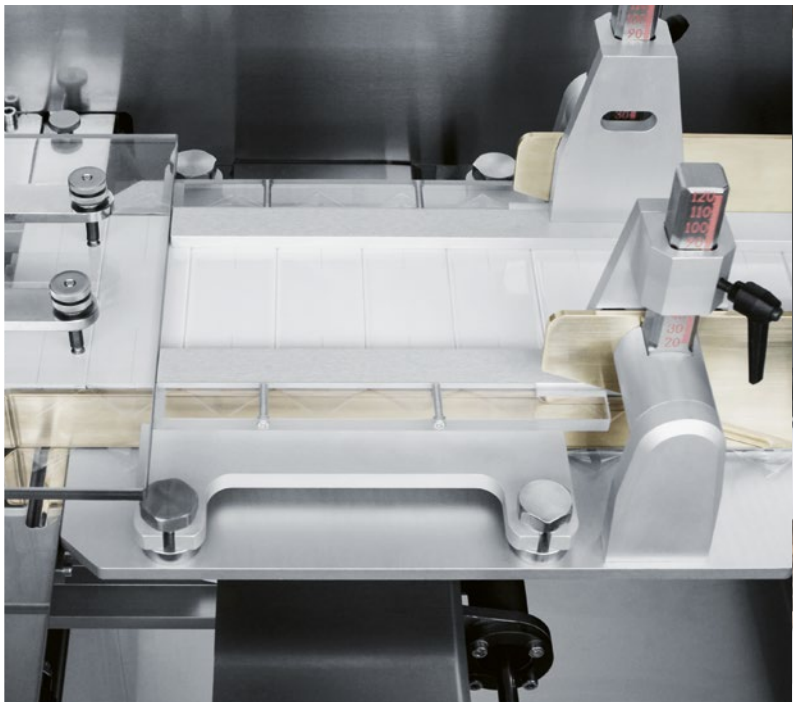
The design and manufacturing standards of our end-of-line solutions take into account specific devices in terms of quality, cleaning and safety required by the pharmaceutical industry and make IMA BFB the ideal partner for logistic integration.
IMA BFB has developed a variety of technologies that enter into play along all packaging lines, contributing with specific expertise to deliver the most complete technological offering of manipulation, carton forming, loading and closing, overwrapping, case packing, stretch banding, shrink wrapping, palletizing and de-palletizing.
The link-up of each single machine is expressly designed to reduce the overall length of the line and minimise the production waste.


Batch No: AZZA
Quantity: 1
50

Overwrapping

IMA BFB has always focused heavily on these processes and has created specific film-winding, conveyor, cutting and sealing systems to ensure that the film is always cut with a geometrically precise fold and sealed without wrinkles, air bubbles or other blemishes.
The flexibility of these machines enables transverse sealing underneath the bundle or lateral sealing.
Our overwrappers can run with thermo-sealable film (OPP, BOPP, etc.), paper, recyclable and compostable films.





AF60 is an efficient, high-speed overwrapping solution for cartons with a remarkably compact footprint. Featuring a stacking unit capable of stacking up to 225 layers per minute, it represents an ideal partner for any high-speed carton packaging line. Maximum accessibility to all components is possible due to the balcony-style design, for easy cleaning and maintenance.

Designed to maximise production efficiency, **HYWRAP20** is a high-speed overwrapping machine for single or bundled products, and a hybrid solution, capable of switching from film to paper without size changeover. Its compact footprint and cantilever structure allow for accessibility and ease of maintenance. Movements are electronically driven by their own specific brushless motor for accurate performance. Size changeover is fast and easy.

Stretch banding and shrink wrapping

Sealing is essential to guarantee secure wrapping; the fume-free cutting and sealing group of our stretch-banding and shrink-wrapping machines is ideal for processing polyethylene while avoiding burning or blemishes. IMA BFB offers a range of machines that can cover different speeds, with dedicated solutions for products whose shape tends to vary widely. The machines can always be combined with a heat-shrink tunnel with lower power consumption which is easily accessible and tends to avoid damage to the product.

Designed to bundle bottles or cartoned bottles and shrink-wrap them with PE film, the **MS560** stretch-banding and shrink-wrapping machine ensures time-saving efficiency, ease of use and accurate product handling at speeds of up to 40 cycles/min thanks to servo-driven technology. top-quality execution. Ergonomic design enables maximum accessibility to facilitate cleaning procedures and maintenance.

The **MS260** stretch-banding and shrink-wrapping machine has been specifically designed to meet the requirements of a market where demand is increasing for extremely compact, easy-to-operate, high-speed machines. High-speed stacking, carton tilting and a shrink tunnel can be integrated into this high-performance unit.

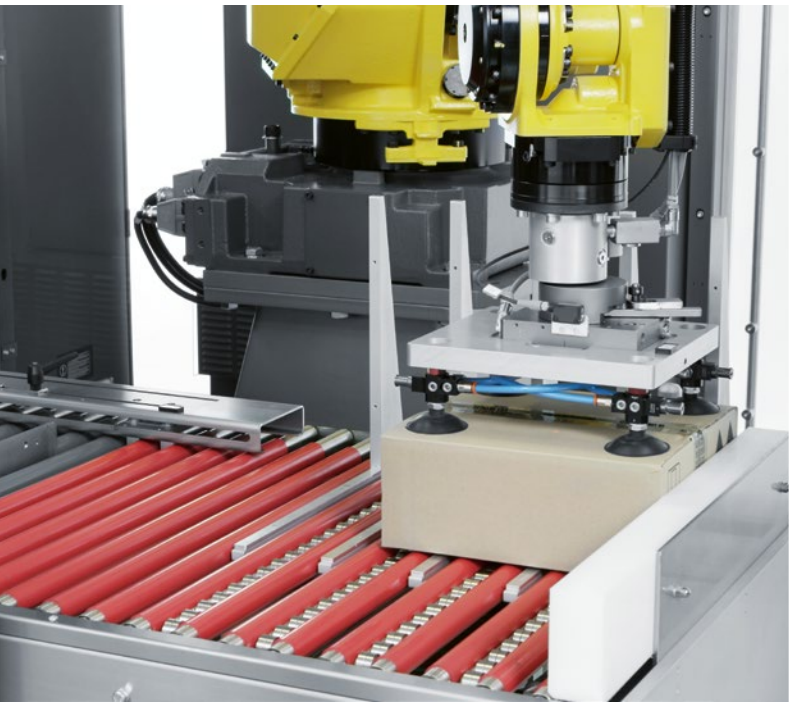
Case packing

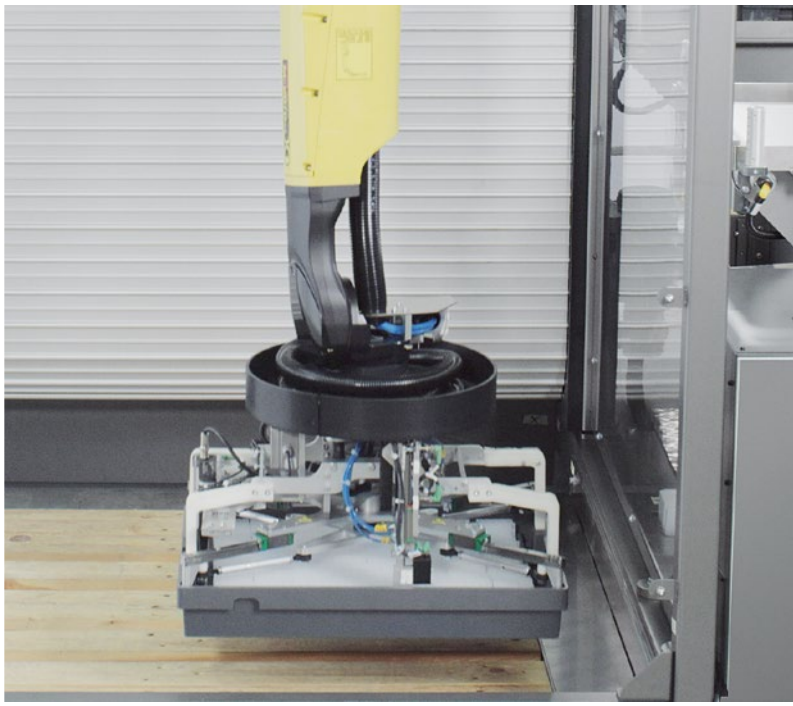
The extensive range of our case packing solutions is certain to cover all possible market requirements.From wrap-around to side or top-loading, all our models are conceived with reduced footprints, however assuring ergonomics and easy operator access for any type of cleaning or maintenance operations.
All of our solutions are devised to ensure total control throughout all stages of the serialisation process.
All of our case packers can be stand-alone or easily integrated with palletizing solutions in a very compact structure.

Flexibility, maximum efficiency, total access and total control make **CPH2** a new-generation, fully automatic, medium-speed side-loading case packer. Designed to handle a very wide range of products and materials, the machine has been built to maximise efficiency and ease of use.

Palletizing and depalletizing

Available in several versions ranging from basic applications, such as manual pallet loading, up to more sophisticated solutions, such as automatic feeding of empty pallets and unloading of full pallets, our palletizers and depalletizers have a solid structure and use precise, rapid multi-axis robotised systems for accurate positioning of products on pallets.
These solutions have been conceived to be stand-alone or integrated with case packers or product handling systems thanks to their extremely easy plug-in connection.



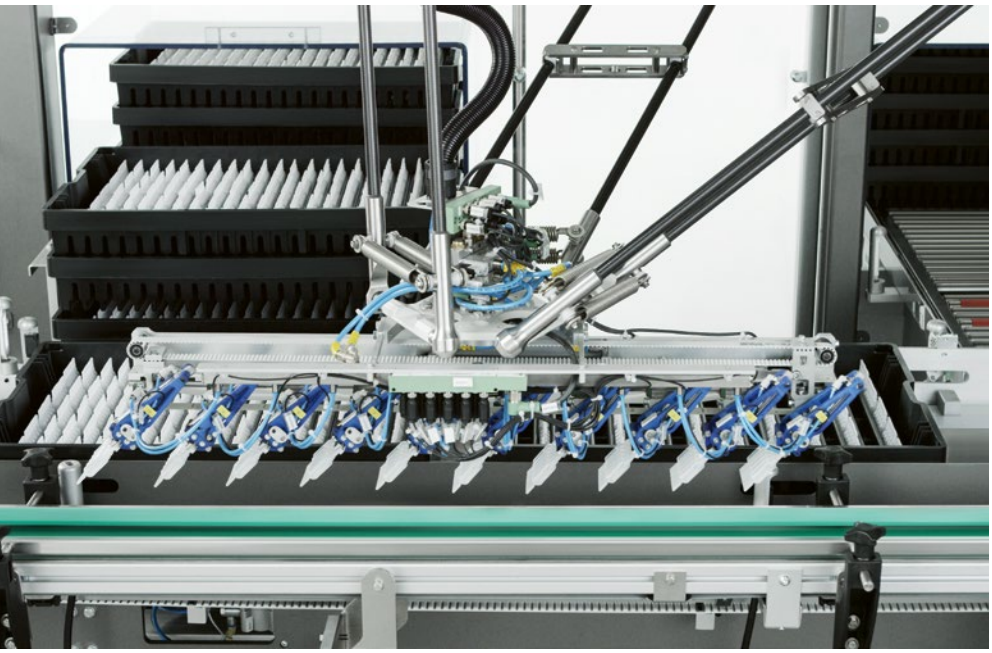


Built to deliver maximum productivity and efficiency, latest-generation, 6-axis robotic **RP2/RP4** palletizers offer exceptional flexibility and are conceived to be stand-alone or easily integrated with case packers thanks to their quick plug-in connection. Modular design allows for customisation of the palletizing section, whose dimensions are kept to a minimum.

Born as a stand-alone concept and thought to be easily integrated with TLS (Tray Loading System) handling systems for product manipulation, **RD** Series palletizers are compact, flexible and ensure high performance. They can handle the most unstable and irregularly shaped products with the utmost accuracy, taking care not to damage them. Robotic technology is at the heart of these systems and allows flexible product handling at the beginning, in the middle or at the end of the line.

Feeding and manipulation

IMA BFB companies provide handling systems to treat blow fill seal containers, inhalers, pens, auto-injectors and other highly sensitive pharmaceutical components at the beginning or at the end of the line. These systems can also be converted into a buffer for product accumulation during line stops.



TLS is a robotic system for the loading and unloading of products to and from trays. Functionally flexible and versatile when it comes to layout and product handling, the machine manipulates strips and inhalers, in and out of trays. Ensuring excellent productivity rates, ideal for automatically operated processes, it relies on efficient robotics.

The **T-LOAD** manipulation robot is designed for the handling of packages, bundles, bottles and medical devices from a conveyor belt, depositing them into pre-formed trays. The system is highly flexible and can handle various materials such as plastic, polystyrene or cardboard trays, positioning them either above or below the products

Track & Trace solutions

Track & Trace is a complex process requiring accurate inspection of the products during the entire production flow. Thanks to successful partnerships with main Vision System Suppliers, IMA BFB has developed a wide range of tailor-made solutions applying the three different reading methods (single code reading, row by row, layer) to all machine technologies: overwrapping, shrink wrapping, case packing and palletizing.

Thanks to the synergy with IMA Labeling operating within the hub, our machines integrate print & apply labellers perfectly aligned with T&T systems. This integration ensures seamless labelling, further enhancing the efficiency and accuracy of the Track & Trace process.

Label application solutions

Labeling systems by IMA Labeling provide comprehensive solutions for the nutraceutical industry, addressing a wide range of specific needs. Solutions include print & apply or apply-alone labelling equipment for a wide range of package types, including cases, trays, flowpacks, doypacks, bags, jars, bottles, pallets, as well as any applications in logistics and e-commerce.

IMA FOR THE PHARMACEUTICAL INDUSTRY

IMA S.P.A.
Via Emilia, 428/442
40064 Ozzano dell'Emilia (Bologna) - Italy
ima.it

IMA COMADIS
Tube Filling Solutions

Via Thomas Alva Edison, 39
20023 Cerro Maggiore (MI) - Italy
+39 0331 422767
sales@comadis.ima.it

IMA ACTIVE
Solid Dose Solutions

Via I° Maggio, 14-16
40064 Ozzano dell'Emilia (BO) - Italy
+39 051 6514111
marketing.active.it@ima.it

IMA FILLSHAPE
Filling and Packaging Solutions

Via Ugo Ferrandi
43126 Parma - Italy
dairyfood@ima.it

IMA AUTOMATION
Flawless Assembly

Via Kennedy J. F., 17
40069 Zola Predosa (BO) - Italy
+39 051 6169711
automation@ima.it

IMA GIMA
Packaging Solutions

Via Kennedy J. F., 17
40069 Zola Predosa (BO) - Italy
+39 051 6169711
marketing.gima@ima.it

IMA BFB
End of Line Solutions

Via Romagnoli, 2
40010 Bentivoglio (BO) - Italy
+39 051 6642111
marketing.bfb@ima.it

IMA ILAPAK
Flexible Packaging Solutions

P.O. Box 191
CH 6916 Grancia - Switzerland
+41 91 960 5900
marketing.ilapak@ima.it

IMA LABELING
Label Application Solutions

Via S. Andrea, 11/b
20008 Bareggio (MI) - Italy
+39 02 90360778
info.phoenix@ima.it

IMA SAFE
Packaging Solutions

Via Europa, 2-4-6
40064 Ozzano dell'Emilia (BO) - Italy
+39 051 4563970
marketing.safe@ima.it

IMA LIFE
Aseptic Processing & Freeze Drying Solutions

Via Maestri del Lavoro, 203
40024 Castel San Pietro Terme (BO) - Italy
+39 051 6514111
marketing.life.it@ima.it

IMA SARONG
Vertical FFS Machines-Packaging Material

Via C. Colombo, 18
42046 Reggiolo (RE) - Italy
+39 0522 212511
info@sarong.it

IMA OMAS
Cosmetic & Healthcare Filling and Capping Solutions

Via Thomas Alva Edison, 39
20023 Cerro Maggiore (MI) - Italy
+39 0331 422767
info@omastecnosistemi.it

IMA SWIFTPACK
Counting Solutions

Swiftpack House, 3 Arden Road - Alcester
Warwickshire B49 6HN - United Kingdom
+44 (0) 1789 400880
marketing.safe@ima.it

IMA PERFECT PACK
Sachet and Stick Packaging

Via Borghetto, 4
47923 Rimini - Italy
+39 0541 728208
info@perfect-pack.com

IMA TEKNOWEB
Nonwoven Converting & Packaging Solutions

Via dei Salici, 7
26020 Palazzo Pignano (CR) - Italy
+39 0373 951311
sales@teknowebconverting.com

imagroup.com

IMA S.p.A.
info@ima.it • imagroup.com/pharma
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