ASSEMBLA

Reinventing technologies for medical devices.

POWERED BY
IMA AUTOMATION

IMA MED-TECH
Technologies for Medical Devices

ASSEMBLA

New generation modular platform

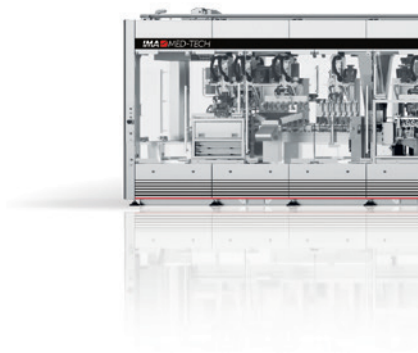
A MODULAR, SCALABLE PLATFORM REDEFINING MEDICAL DEVICE ASSEMBLY

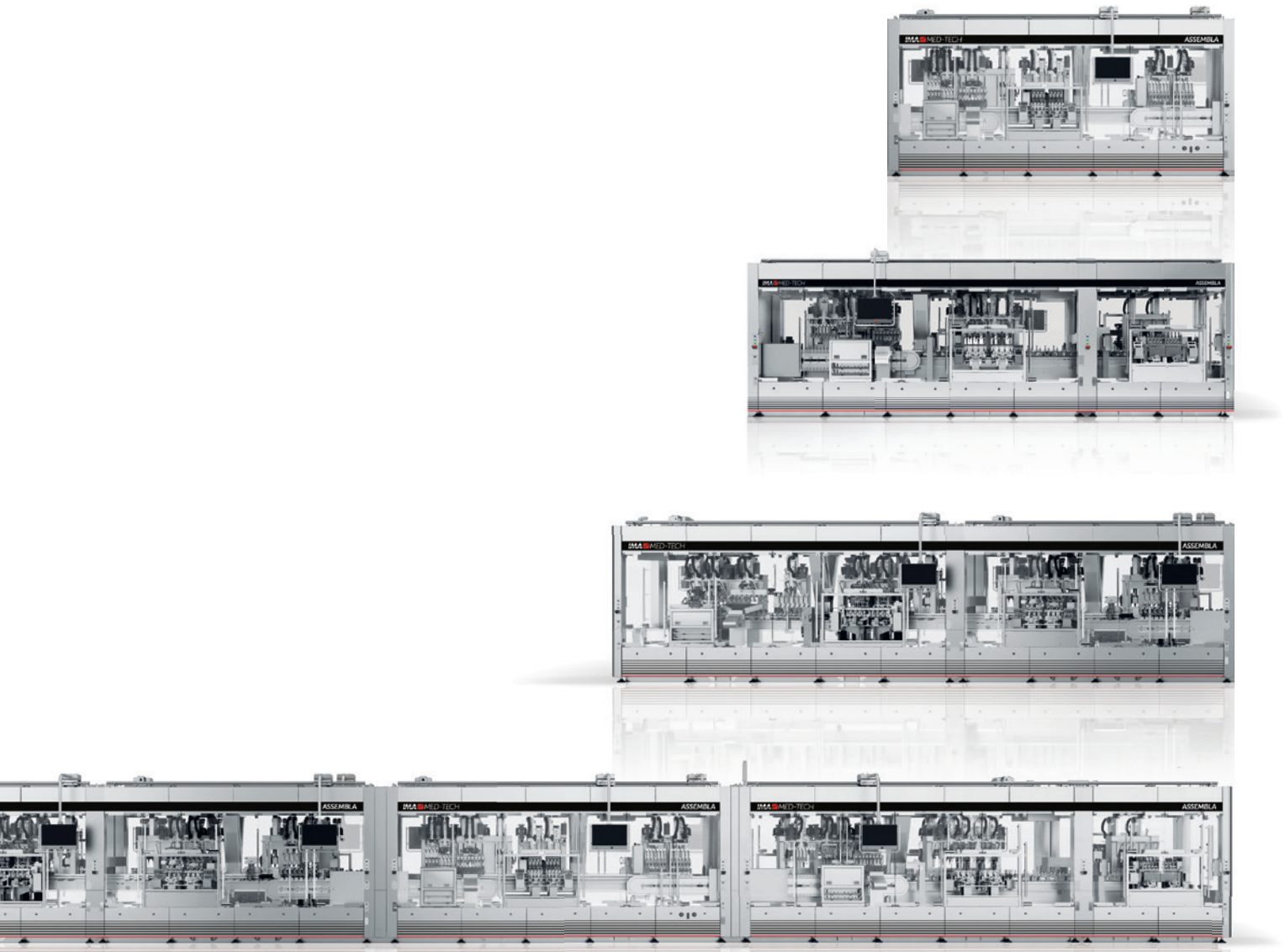
In the rapidly evolving medical device industry, manufacturers face constant pressure to adapt production to shifting product requirements, fluctuating market demand, and increasingly stringent regulatory expectations.
ASSEMBLA, the new-generation modular assembly platform developed by IMA MED-TECH, has been engineered precisely to address these challenges. Built on a fully modular architecture, the platform enables manufacturers to configure assembly solutions according to the specific characteristics of each device, as well as the required throughput and precision level, delivering an unprecedented combination of flexibility, scalability and validation reliability.
At its core, ASSEMBLA consolidates decades of industrial expertise.

The platform integrates proven IMA MED-TECH processes, 60 years of industrialisation experience, full traceability and in-process validation, compatibility with customer-preferred control ecosystems, the new HMI interface, IoT and Sentinel-ready monitoring and Challenge Mode for pre-batch verification -elements that collectively elevate operational efficiency and compliance. No other platform brings together such a broad set of capabilities within a single frame.

ASSEMBLA's architecture is built around a single extendable frame, stretchable from 2 to 6 metres, which can be expanded by adding or interconnecting frames in horizontal, vertical or mixed configurations. This structural modularity enables manufacturers to size the platform precisely around process needs, minimising footprint while maximising capability.

- SINGLE EXTENDABLE FRAME, STRETCHABLE FROM 2 TO 6 METRES
- SCALABLE BY ADDING OR INTERCONNECTING FRAMES IN HORIZONTAL, VERTICAL OR MIXED CONFIGURATIONS
- THROUGHPUT FROM 20 TO 500 PPM
- NEW HMI INTERFACE
- IoT AND SENTINEL-READY MONITORING
- CHALLENGE MODE FOR PRE-BATCH VERIFICATION



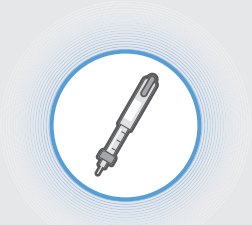

ASSEMBLA

FUTURE-PROOF SOLUTION

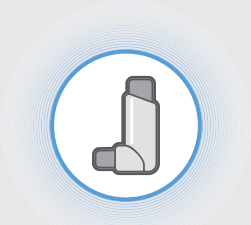
For multi-generation and multi-device production

The structured scalability - ranging from 20 to 500 ppm - allows manufacturers to start small and confidently scale up without changing platforms or introducing technological discontinuities. It is a future-proof approach tailored to devices such as injectables, inhalers, diagnostics, wearable technologies and ophthalmic systems.
From pens produced at over 350 ppm, to inhalers assembled at above 200 ppm, to ultra-precise eye-care device processes, ASSEMBLA supports both high complexity and high throughput. Its modular, expandable architecture enables manufacturers to manage multiple product generations on a single platform, ensuring readiness for future variants and evolving market demands.

ASSEMBLA is not just a machine. It's a universal assembly ecosystem designed around products, processes and future.

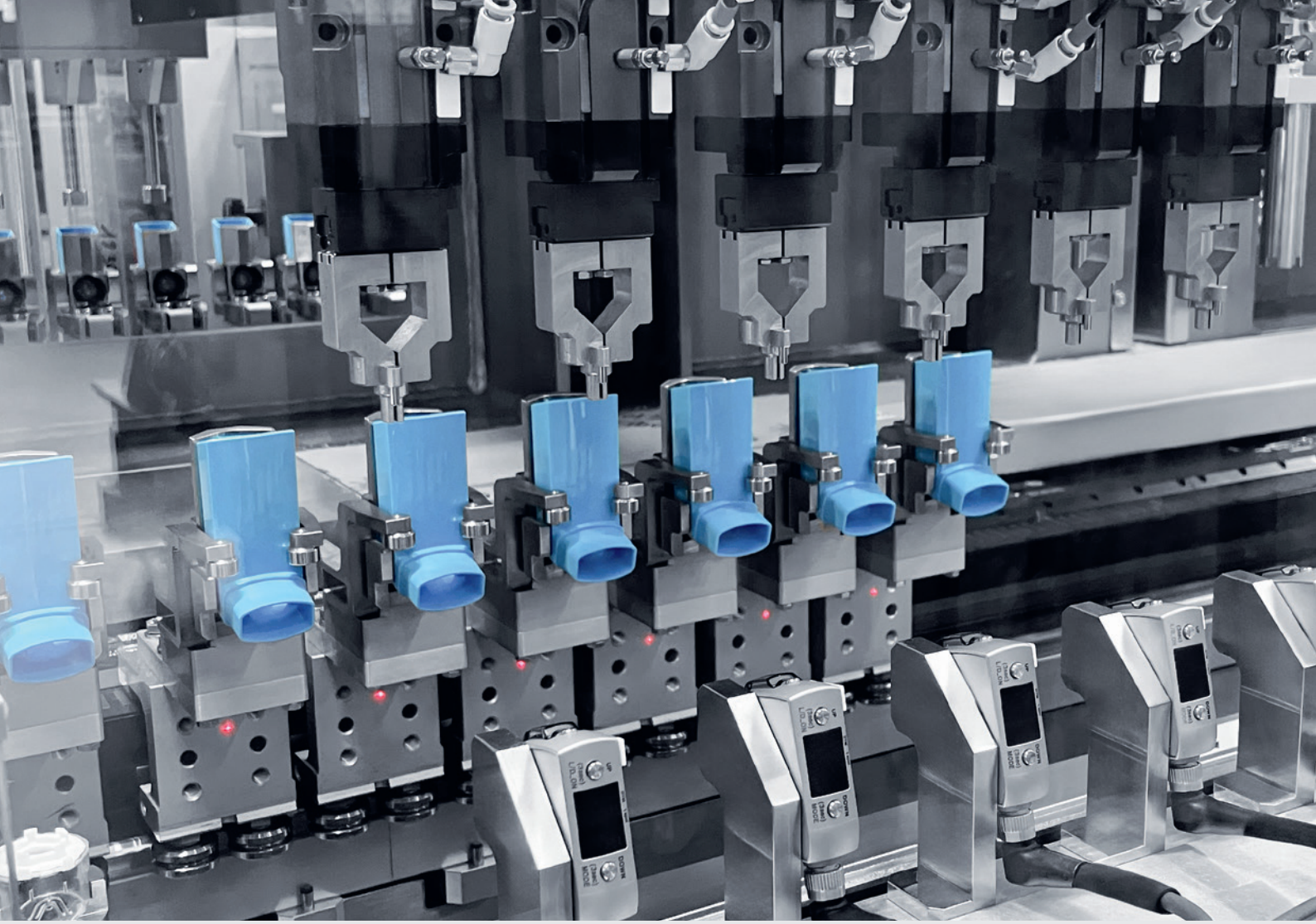


INJECTABLES



INHALERS

DIAGNOSTICS



WEARABLES

OPHTHALMIC SYSTEMS

CONFIGURABLE ACCORDING TO REQUIRED THROUGHPUT AND SPECIFIC CHARACTERISTICS OF EACH DEVICE.

SCALE SEAMLESSLY

Through every stage of the product lifecycle

One of the defining strengths of ASSEMBLA is its ability to scale seamlessly as a device progresses from early development to commercial maturity. At the initial design and clinical stages, semi-automatic, stand-alone units offer throughputs of up to 20 ppm, with compact footprints and standardised base frames ideal for laboratories and trial environments. Precision tooling ensures compliance with critical assembly requirements.
As production needs grow, manufacturers can transition to compact automatic cells delivering up to 40 ppm, designed for small-batch manufacturing.

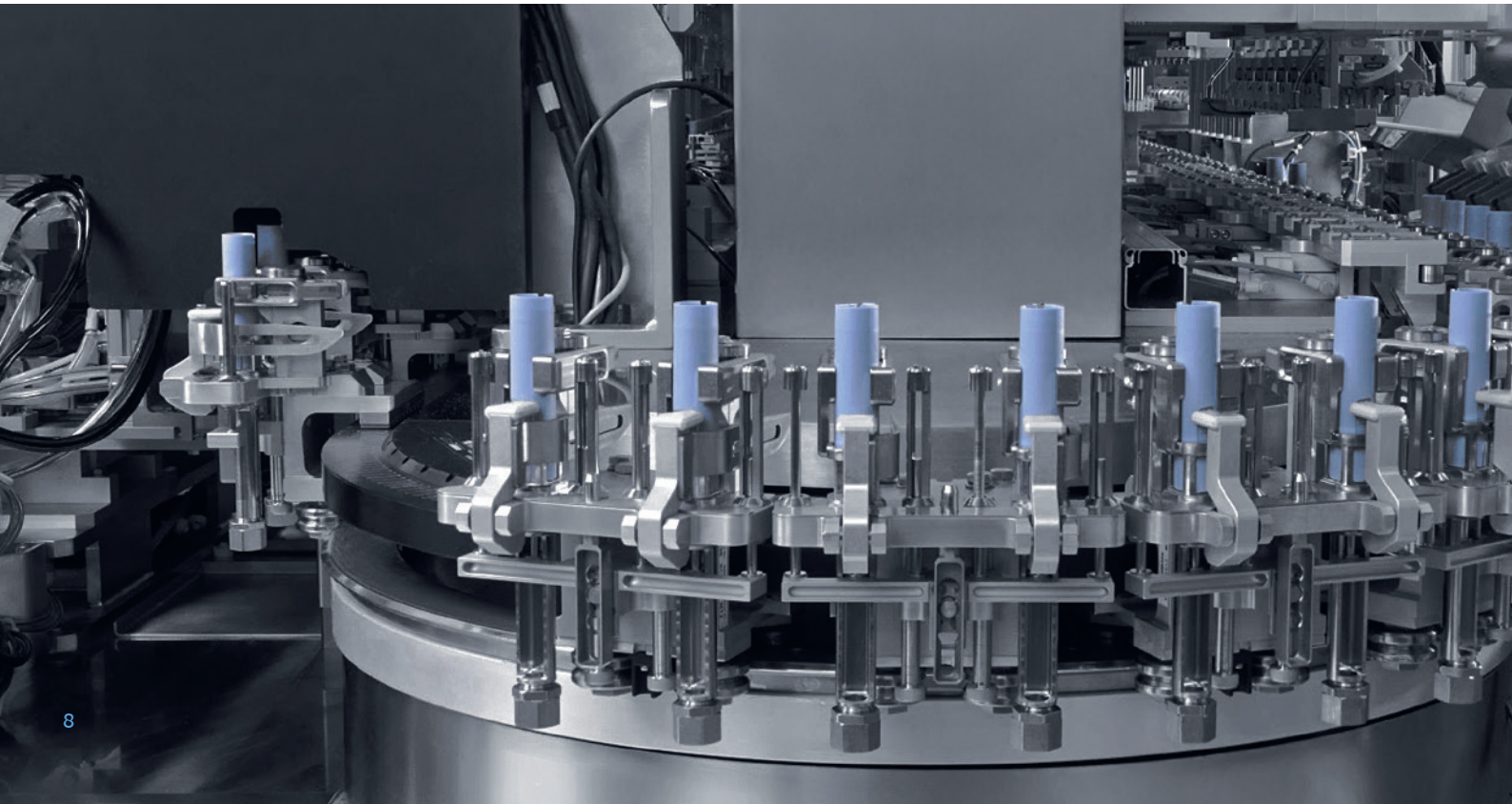
FROM COMPACT STANDARDIZED UNITS UP TO FULLY AUTOMATIC HIGH-PERFORMANCE CUSTOMIZED LINES

These systems replicate the logic and workflow of high-speed configurations, ensuring smooth and low-risk scale-up.
For industrial mid-scale operations, fully automatic solutions reach speeds of 200 ppm, integrating robotic, pneumatic, cam, magnetic, or servo-driven technologies along with rotary dial or pallet-based transport systems. When maximum output is required, super high-performance lines deliver up to 500 ppm, offering lean architectures, high energy efficiency and extremely low maintenance.

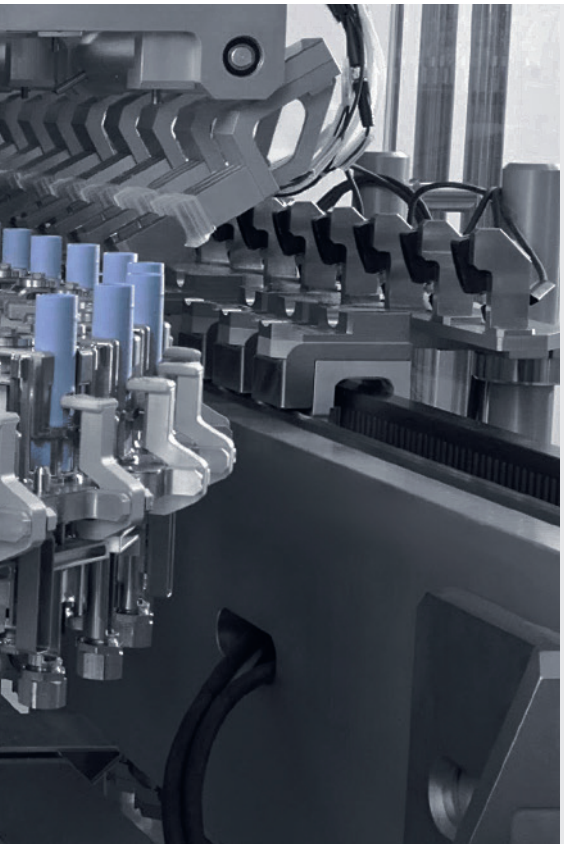
TRANSPORT FLEXIBILITY

Any magnetic transport system integration

Transport flexibility is another strategic differentiator.
ASSEMBLA can integrate any magnetic transport system, even vertical configurations, ensuring customers are not locked into proprietary technologies.
The platform is also compatible with all major programmable controllers reducing validation barriers and eliminating the need for retraining operators or adapting documentation.
In summary, the platform's foundational principle is simple:
"One frame. All markets. Any volume. Your ecosystem."



- POSSIBILITY TO INTEGRATE ANY MAGNETIC TRANSPORT SYSTEM, EVEN VERTICAL CONFIGURATIONS
- SCOMPATIBLE WITH ALL MAJOR PROGRAMMABLE CONTROLLERS



ONE FRAME.
ALL MARKETS.
ANY VOLUME.
YOUR ECOSYSTEM.

UNPRECEDENTED COMBINATION

Of flexibility, scalability and validation reliability

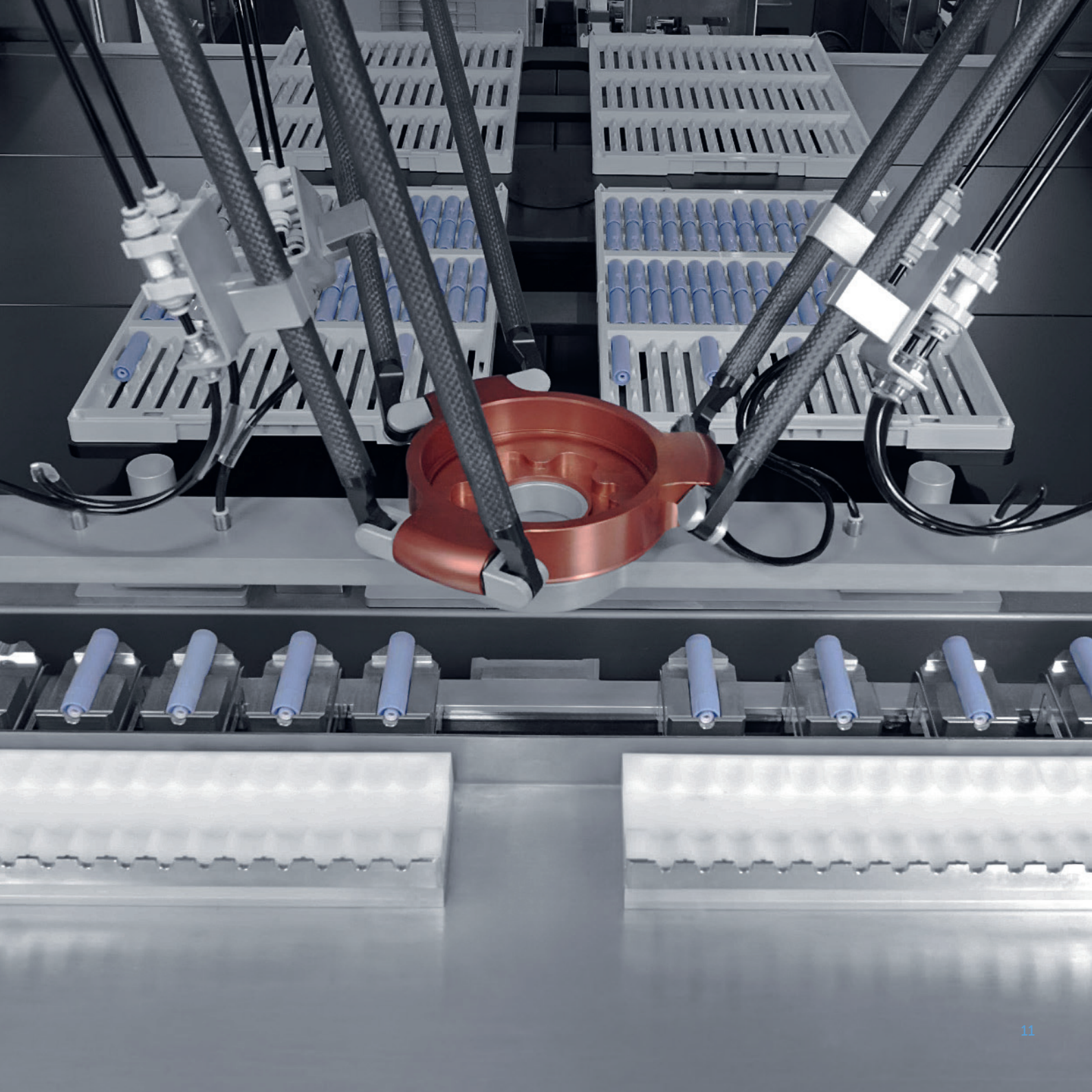
ADVANCED TECHNOLOGIES FOR CONTROLLED REPEATABLE PROCESSES

ASSEMBLA integrates advanced process-control systems to ensure product integrity. Force-distance monitored insertion provides certified accuracy on force profiles and final position, with full calibration records. High-resolution vision - via stations or on-the-fly - detects cosmetic/dimensional defects and verifies Data Matrix codes and colour rings.
Drum, bowl and centrifugal spring feeders ensure stable compression and alignment, while recipe-based setups enable fast multivariant changeovers.
Wraparound or rollaround labelling modules support full vision control, with optional upstream laser marking. All configurations prevent glass-to-glass and glass-to-metal contact, protecting delicate components such as pre-filled syringes.

LOGISTICS AND MATERIAL HANDLING FOR HIGH-PERFORMANCE ASSEMBLY

ASSEMBLA handles components supplied in bulk, trays, pallets or custom formats.
Feeding technologies are chosen based on part geometry and process needs, ensuring synchronised material flow.
Tray loaders operate from 40 to over 300 ppm, while palletizing systems reach up to 350 ppm, with manual or AGV loading.
Transport options include free-floating pallets, cam-driven systems and magnetic platforms, selectable
to meet specific precision and speed requirements.

- TRAY LOADERS: FROM 40 TO OVER 300 PPM
- PALLETIZING SYSTEMS: UP TO 350 PPM, WITH MANUAL OR AGV LOADING



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