



X-PEN

ADVANCED PEN AND AUTOINJECTOR
ASSEMBLY SOLUTIONS

IMA  **AUTOMATION**

ADVANCED
MODULARITY

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ADVANCED
TECHNOLOGY

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ADVANCED
QUALITY

8

ADVANCED
EFFICIENCY

10

ADVANCED
CONNECTIVITY

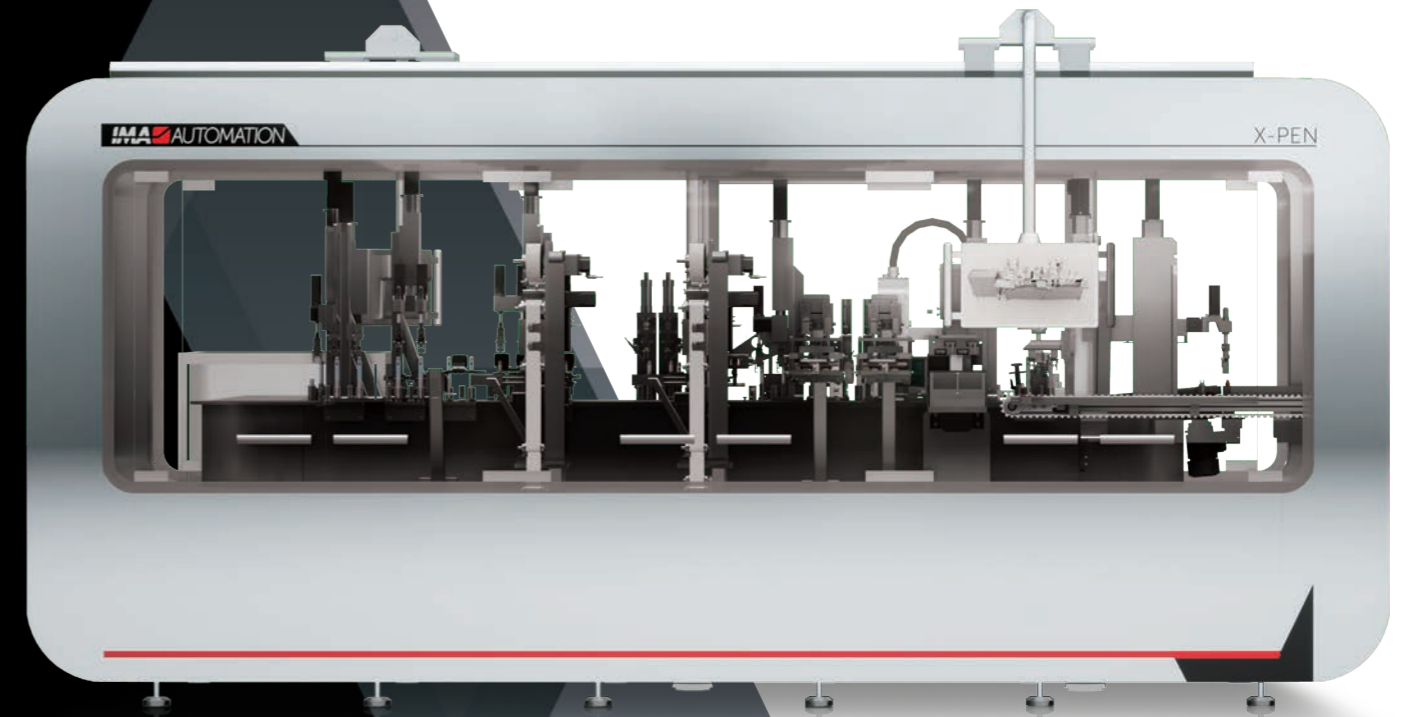
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TECHNICAL DATA AND
TURNKEY SOLUTIONS

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IMA AUTOMATION standard, using our new modular platform approach for pen and autoinjector final assembly systems.

With robust latest technologies, labelling as standard, quick time-to-market, compact design, standard machine bases and a fast ROI, our X-PEN system uses state-of-the-art technology: at your fingertips.



ADVANCED MODULARITY



X-PEN is based on a Linear Magnetic Transport System (LMTS) which allows flexibility, modularity and speed

IMA AUTOMATION sees the multicarrier system as a core technology for its applications, as it is a smart transport system that optimises machine configurations, with simplified mechanics and integrated electrical cabinet.

The transport system is based on the motion of “movers” across a magnetic loop. Our smart transport system that IMA AUTOMATION are proud of, perfectly matches your pen and autoinjector product requirements.

An integrated turnkey final assembly solution that is smooth, fast, efficient, quiet and of lean design using only the required amount of tracks necessary.

Advanced Motion Control

A dedicated industrial PLC is used to manage the LMTS loop, each mover is controlled independently.

- 10 MICRON REPEATABLE ACCURACY
- LOW MAINTENANCE MTBF 16'000 HOURS
- 8M LOOP UP TO 27 STATIONS
- ELECTRICAL PICK & PLACE (REDUCTION OF AIR)
- STAINLESS STEEL EXECUTION
- FULL SYNCHRONIZATION OF THE MOVERS AND STATIONS
- LOW NOISE LEVEL <78 DB

A detailed black and white photograph of industrial machinery, likely a robotic pick-and-place system, serves as the background for the left half of the page. The machinery features various mechanical components, including what appears to be a gripper or end effector, mounted on a complex frame with rollers and guides.

ADVANCED TECHNOLOGY

Latest technologies whilst achieving robustness and reliability, with labelling as standard

Electrical Pick and Place

To reduce air consumption and have full control via our PLC, electrical pick & place modules are used.

Motors for vertical and horizontal motions are fixed and both are controlled separately. All motors are servo driven on an axis.

Precise Label Application

Labels are fed from a reel and are presented ready for wrapping, a pick & place module transfers the labels to the pens. A roller system wraps the labels around the pens and insures correct alignment of the labels edges.

When the reel is empty, either a manual quick change-over process is made, ensuring a rapid return to production, or, an automated auto change-over system insures continuous autonomy.

Label printing like date and batch code, together with OCR check prior to application is available as an option. A tracking system is integrated to log each device.

ADVANCED QUALITY

X-PEN guarantees quality and control

Using both mechanical and vision systems, with inspection speeds of <80ms, your pen or autoinjector is checked for necessary critical assembly processes and dimensions. The vision system is triggered directly from the Linear Magnetic Transport System (LMTS), insuring accurate device positioning prior to inspection.

Vision inspection is carried out during the transfer at a controlled speed. Having off-the-shelf standard equipment brings its own advantages. A smart machine turning a standard concept into real value in terms of reduced lead times, space efficiency and reliability.

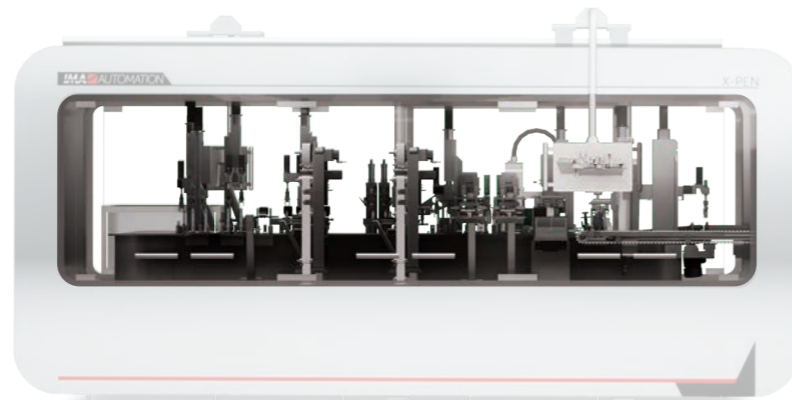


ADVANCED EFFICIENCY

All key processes integrated

With processes being the heart of repeatable and robust assemblies, many are standard, others are optional.

- DE-NESTING
- ELECTRICAL PICK & PLACE
- CARTRIDGE/PFS VISION INSPECTION
- PRIMING
- PRESS FORCE SYSTEM
- LABELLING
- FUNCTIONAL TESTING
- 2D MATRIX CODE PRINTING & INSPECTION
- ON-THE-FLY VISION



- PALLETIZING
- TRAY LOADING
- CARTRIDGE, CAP & CARTRIDGE HOLDER FEEDING





ADVANCED CONNECTIVITY

IMA Group standard HMI concept

Ease of use and having user friendly information at your fingertip's aids to operator and engineer efficiency, MTTC (Mean Time to Correct) is minimal with our 2D & 3D images and descriptions in any language.

- SIMPLE, MODULAR SYSTEMS
- STANDARD BASES
- CUSTOMIZABLE
- CROSS-PLATFORM CLIENTS
- OPC/UA AS CORE TECHNOLOGY

SENTINEL: efficiency at hand

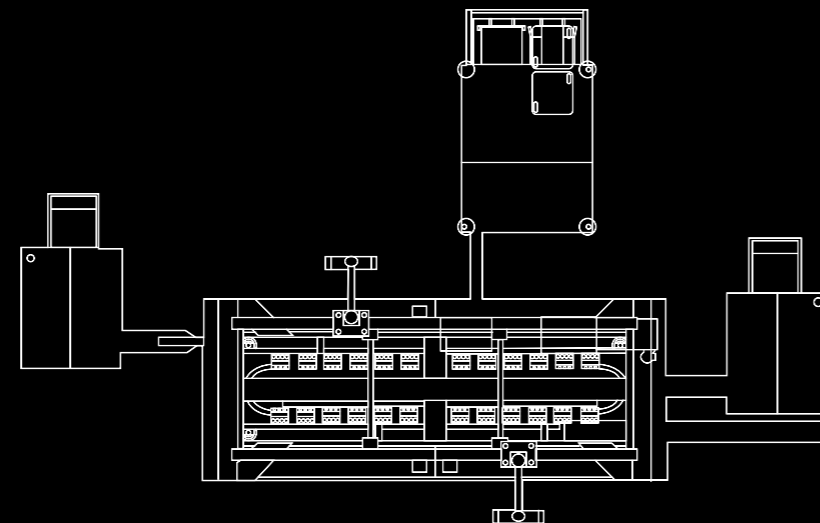
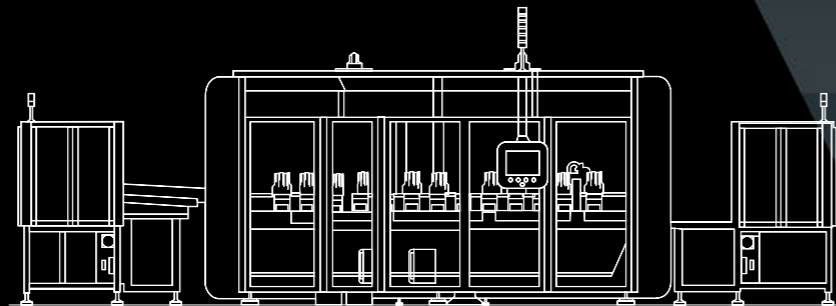
SENTINEL is the platform to access all data driven services for production. Through SENTINEL it's possible to monitor autonomously machine conditions in real time, collecting raw data and translating them into meaningful and valuable information.

- INTELLIGENT AND DYNAMIC ACTION LISTS TO HELP IMPROVE EFFICIENCY
- MACHINE DATA STATISTICS FOR SMART LINE HARMONIZATION
- REAL AVERAGE PERFORMANCES FOR ACCURATE PRODUCTION PLANNING
- COMMUNICATION VIA SMART DEVICES



TECHNICAL DATA

THROUGHPUT	40 OR 80 PPM
AUTONOMY	30 TO 60 MINUTES
DIMENSIONS	8.0M X 5.2M
POWER REQUIREMENTS	3 X 400 VAC 50/60 HZ
NOISE LEVEL	<78 DB

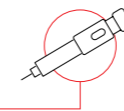


TURNKEY SOLUTIONS

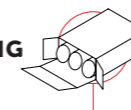
Assembly and packaging integrated solutions

IMA is your 'all-in-one' provider for low, medium and high volume assembly and packaging solutions.

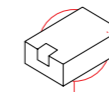
ASSEMBLY



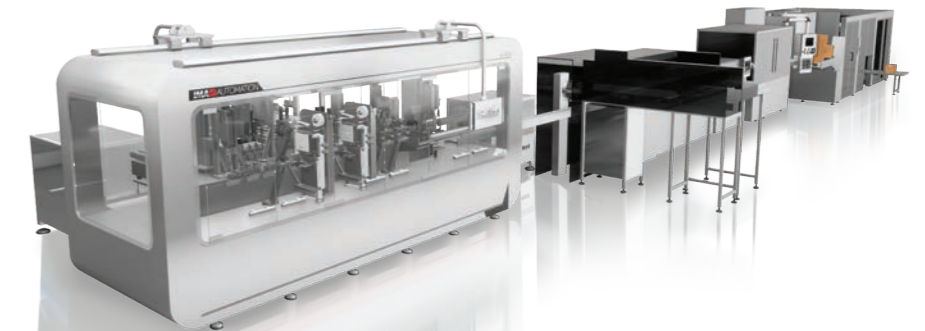
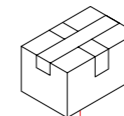
SECONDARY PACKAGING



CARTON LABELLING



END-OF-LINE



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FOLLOW IMA AUTOMATION    