

Constructing a module-type flexible production line

Standardized cells based on 1200-mm-side blocks

Basic configuration and various selectable applications

- The production line can be configured by combining Block Connect Cells.
- Each cell has a selected robot, a conveyor, and FA equipment (programmable controller and GOT) as standard.
- Various applications. (including parts supply, assembly, screw tightening, fitting, and inspection).



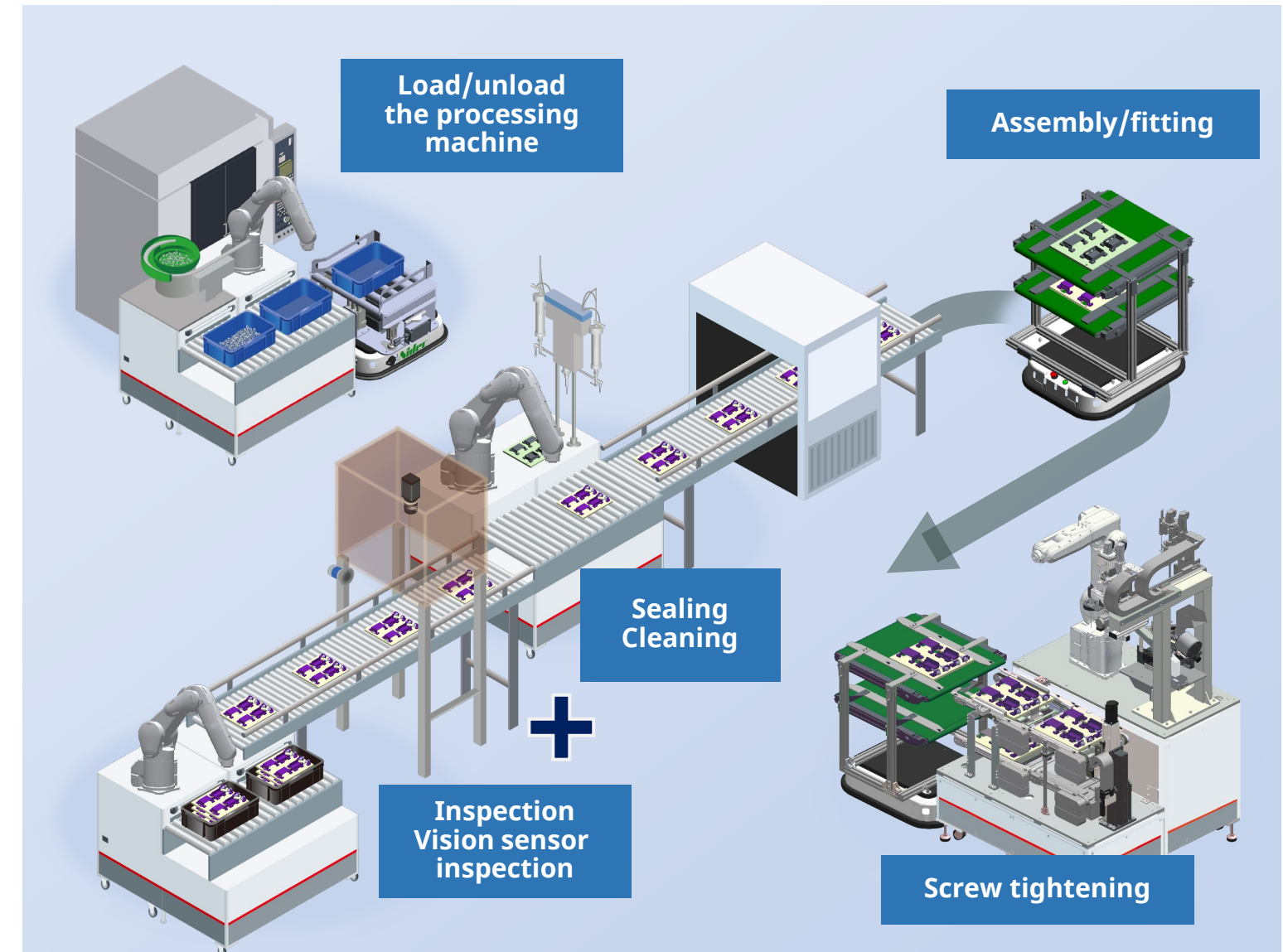
Basic system configuration	Robot arm
	Stand & cover (can be divided for transportation)
	Controller (PLC/GOT)
	Basic application

Easy-to-understand visualization of production progress and operating status

Standardized models made for visualization and applications

- Easy-to-understand visualization of production progress and operating status in manufacturing (SA1-III).
- Proposal of optimal solutions for standardized systems using the GOT as the user interface (sample library).
- Equipment status understood easily by visualizing Mitsubishi Electric FA products and other manufacturers' products.

Application examples



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Parts supply, assembly, screw tightening, and inspection - all tasks integrated into one cell

- Two-level conveyor is used both to feed parts trays and eject finished product trays.
- High accuracy is achieved by multi-directional screw tightening with the industrial robot and MELSERVO.
- Flexible transportation between processes using AGVs from multiple processes to multiple locations.

Screw tightening automation problems addressed by the Block Connect Cell

Visualize the screw tightening process / failure detection

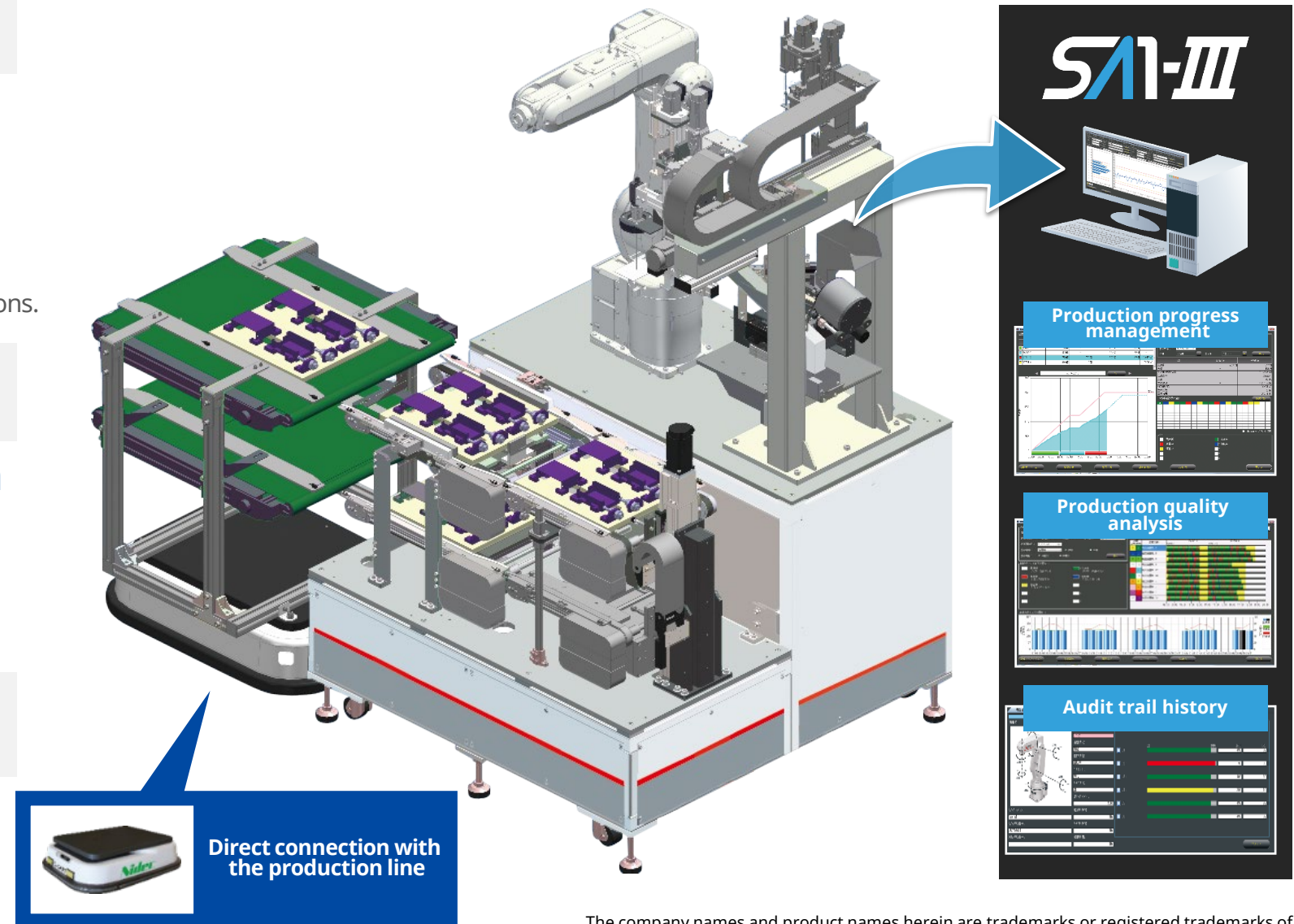
- Screw tip shaking prevention after the screw suction removal (screw toppling prevention).
- Screw off-position inspection and screw height measurement after tightening screws (with the judgment value modification function).
- Pre-start operation of screw removal (tact time reduction), screw insertion check (screw length).

Preventive maintenance / predictive maintenance / remote engineering

Reduce the downtime of the production equipment

- iQ Care MELFA Support (extended robot warranty & visualization).
- iQ Care Remote4M service (SA1-III maintenance service).
- Remote engineering (secure connection from a remote location to support maintenance).

Screw tightening application



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