

Meet MaruX™: Setting the Standard for End-to-End Continuous Biomanufacturing

Introducing the result of decades of innovation in cell culture technologies



Simple, customizable and productive

The MaruX platform radically reimagines continuous manufacturing by automating and integrating both upstream and downstream processes. Leveraging SymphonX™ to enable modular, flexible production lines, MaruX uses an intensified, consecutive-batch end-to-end processing approach that boasts advanced buffer management, streamlined scale-up and scale-out capabilities, improved raw material efficiency, and unparalleled quality.

GMP Ready 2026

Simplified and streamlined

- Modular, multi-function SymphonX™ units link up in the MaruX platform to create a fully integrated upstream and downstream, end-to-end process for the production of biotherapeutics
- Straightforward, multi-cycling single-column chromatography preserves quality and simplifies regulatory reporting while enabling easy conversion from fed-batch to continuous processing
- Fully automated, operator-independent, functionally closed system reduces opportunity for human error

Efficient Processes

Efficient and sustainable

- Multipurpose, modular equipment and integrated buffer concentrate enable smaller facility footprints
- Point-of-use, in-line buffer dilution, blending, and media management simplify operations
- Enables productivity advantages of perfusion over fed batch to be realized
- Similar or improved product quality attributes when compared to batch processing, with excellent cell density and viability

Cost-Effective, Highly Productive

Flexible and scalable

- Extendable run times accommodate shifting product demands, with scalable perfusion systems capable of 30+ day runs
- SymphonX™ single-unit production line assembly enables rapid reconfiguration or process adjustment.
- Simultaneous operation of all connected SymphonX™ units allows rapid, agile operation without impacting quality profile or filing burden
- Intensified batch processing enables high-density perfusion cell cultures with high expression titers

Agile scaling and adaptations to high titers

Integrated and automated

- KojoX™ global facility design with MaruX allows rapid technology transfer plus ease of adaption to fluctuating supply demands and geographic market expansion
- Automated, weight-trigger-based controls transfer everything from upstream to downstream—without operator intervention, reducing opportunity for error, enhancing output and preserving quality
- Robust, reusable, fully disposable and irradiated flow paths use best-in-class components, and are USP class VI compliant
- Intensified semi-continuous batches maintain sterile boundaries in functionally closed, end-to-end flow paths, providing excellent bioburden control and boundary delineation that enable lot-specific analytics and reduce regulatory risk

Harmonized Oversight, Better Control

GMP-ready in 2026

MaruX: Better from every angle



MaruX™ is just one way FUJIFILM Biotechnologies does things better. Reach out to learn more about our fully disposable end-to-end, automated, integrated continuous bioproduction system.

Partners for *Life*

"Partners for Life" represents a transformative approach to development and manufacturing, emphasizing relationships founded on trust and transparency — founded in people-centric values, transformative science and innovation, and unprecedented delivery.

CDMO
LEADERSHIP
AWARDS 2024

FUJIFILM Biotechnologies
fujifilmbiotechnologies.fujifilm.com



MKT-0192-IF-rev01
© 2025 FUJIFILM Diosynth Biotechnologies.
All Rights Reserved.

