

DROFEN Publishes Second Column in Pharmaceutical Technology, Launches Pen Injector Pre-Assembly Machine

DROFEN details 160-PPM pen injector final assembly machine engineering in Pharmaceutical Technology and launches pre-assembly machine for GLP-1 pens.

The logo for DROFEN, featuring the word "DROFEN" in a bold, black, sans-serif font. A blue swoosh underline is positioned beneath the letters.

DROFEN MACHINERY — Pen Injector Assembly Machine Manufacturer

SHANGHAI, SHANGHAI, CHINA, July 16, 2026 /EINPresswire.com/ -- DROFEN Machinery, a specialist manufacturer of [pen injector assembly](#) machines and

turnkey pharmaceutical equipment systems, today announced the publication of its second technical column in Pharmaceutical Technology—the world's leading pharmaceutical manufacturing journal—while simultaneously expanding its [pen injector assembly line](#) portfolio with a high-speed pre-assembly platform capable of processing 160 pens per minute.

Two Technical Columns in Pharmaceutical Technology: Establishing Engineering Authority

DROFEN's latest column in Pharmaceutical Technology, titled "Engineering High-Speed [Pen Injector Final Assembly Machine](#): Solving the Cartridge Press-Fit Challenge," addresses one of the most critical failure modes in injection pen final assembly: glass cartridge breakage during servo press-fit insertion. The article details how DROFEN's pen injector final assembly machine achieves >99.5% first-pass yield through KISTLER force-displacement monitoring, electronic camming profiles, and closed-loop servo control across 24 assembly stations.

This publication follows DROFEN's first Pharmaceutical Technology column, "Overcoming Fill-Finish Capacity Bottlenecks in Automated Pen Injector Assembly Lines," which examined the engineering architecture required to scale pen injector assembly from pilot-scale to high-volume production at 160 PPM. Together, the two columns establish DROFEN as a recognized engineering voice in the pen injector assembly equipment sector.

"Publishing in Pharmaceutical Technology is not marketing—it is engineering accountability," said Jordan Xu, Managing Director of DROFEN Machinery. "When pharmaceutical manufacturers evaluate pen injector assembly machines, they deserve transparent technical data on yield rates, force profiles, and validation methodologies. Our two columns cover the full spectrum: from

capacity architecture to precision assembly mechanics."

Portfolio Expansion: Complete Pen Injector Assembly Line from Pre-Assembly to Final Assembly

Building on its proven pen injector final assembly machine technology, DROFEN now offers a complete end-to-end pen injector assembly line covering both pre-assembly and final assembly stages—a capability critical for pharmaceutical manufacturers and CDMOs scaling up insulin pen and GLP-1 pen production.

DROFEN Pen Injector Pre-Assembly Machine — Key Specifications:

- Integration of up to 13 micro-components (dose dials, drive sleeves, clutch springs, number sleeves, pen housings) in a single pass
- 160 PPM throughput via cam-driven continuous motion architecture
- 100% in-line mechanical function verification (dose accuracy, reset torque, button force)
- Compatible with both disposable and reusable pen platforms
- Designed for insulin pens, GLP-1 pens (semaglutide, tirzepatide, liraglutide), and next-generation multi-dose injection devices

DROFEN Pen Injector Final Assembly Machine — Key Specifications:

- Servo-controlled cartridge press-fit with real-time KISTLER force-displacement monitoring
- 2-cell modular architecture with 24 servo stations and 42 RFID-tracked pallets
- Keyence + Cognex multi-camera vision inspection system
- Full 21 CFR Part 11 and EU GMP Annex 11 data integrity compliance
- Turnkey project delivery with FAT/SAT/IQ/OQ/PQ validation support

Addressing the Global Surge in Pen Injector Demand

The global pen injector market is experiencing unprecedented demand driven by the rapid expansion of GLP-1 receptor agonist therapies and the continued growth of insulin delivery devices. Pharmaceutical manufacturers require pen injector assembly machines that combine high-speed throughput with the precision necessary for safety-critical drug delivery devices.

DROFEN's ability to supply both pre-assembly and final assembly equipment from a single

engineering center ensures seamless mechanical interface compatibility, reduced validation timelines, and single-source project accountability—eliminating the integration risks that arise when sourcing pen injector assembly machines from multiple vendors.

About DROFEN Machinery

DROFEN Machinery is a premier manufacturer of automated pharmaceutical assembly equipment headquartered in Shanghai, China. The company specializes in pen injector assembly lines (pre-assembly and final assembly machines), prefilled syringe (PFS) filling and stoppering systems, and automated pharmaceutical light inspection machines. DROFEN delivers turnkey engineering projects with full GMP validation support to pharmaceutical manufacturers, CDMOs, and drug delivery device companies worldwide.

For technical specifications of DROFEN's pen injector assembly machines, visit:

<https://www.drofen-pharma.com/pharmaceutical-machine/pen-injector-assembly-line/>

Technical Columns in Pharmaceutical Technology:

•Column 1: "Overcoming Fill-Finish Capacity Bottlenecks in Automated Pen Injector Assembly Lines" —

<https://www.pharmtech.com/view/overcoming-fill-finish-capacity-bottlenecks-in-automated-pen-injector-assembly-lines>

•Column 2: "Engineering High-Speed Pen Injector Final Assembly Machine: Solving the Cartridge Press-Fit Challenge" — <https://www.pharmtech.com/view/engineering-high-speed-pen-injector-final-assembly-machine-solving-cartridge-press-fit-challenge>

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