

iChen™ AI Molder

Smart Start, Precise Production Boost Efficiency. Accelerate Growth. Powered by AI.



iChen™ AI Molder is an AI-driven injection-molding solution developed by Chen Hsong Group in collaboration with industry-academia research teams. It integrates AI with injection-molding process expertise to recommend and optimize parameters, stabilize mass production, reduce defects, and increase yield.



“ I want my factory to achieve manufacturing consistency. ”

With real-time data and AI-assisted calibration of every molding cycle, we ensure consistent, stable product quality.



“ We aim to capture our master craftsmen’s 20+ years of expertise, digitizing this invaluable legacy for future generations. ”

The system continuously collects diverse process data; AI then organizes and analyzes it using deep learning.



“ We are focused on boosting operational efficiency by optimizing labor utilization and cost. ”

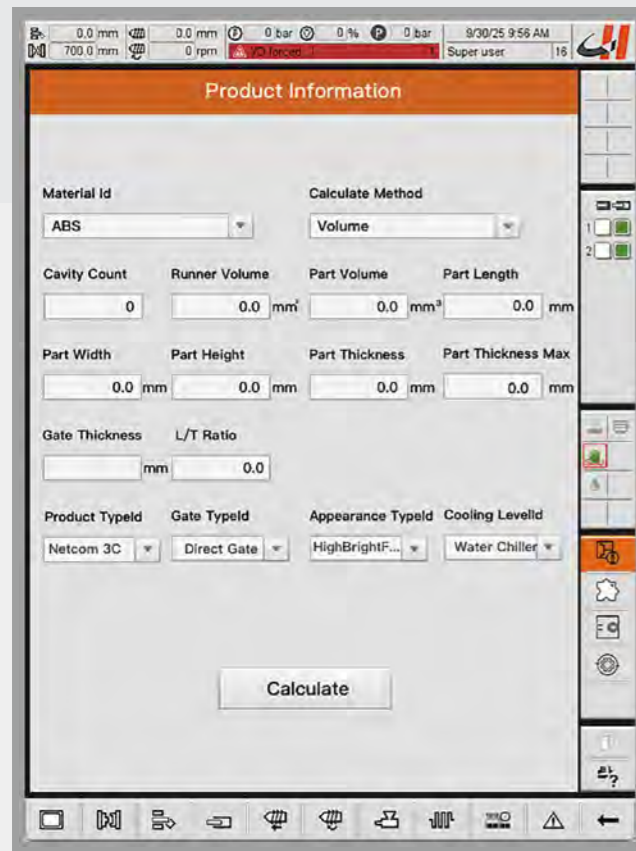
AI Molder delivers capabilities comparable to a setup technician with eight years’ experience.



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AI Molder Smart Parameter Tuning



Step 1

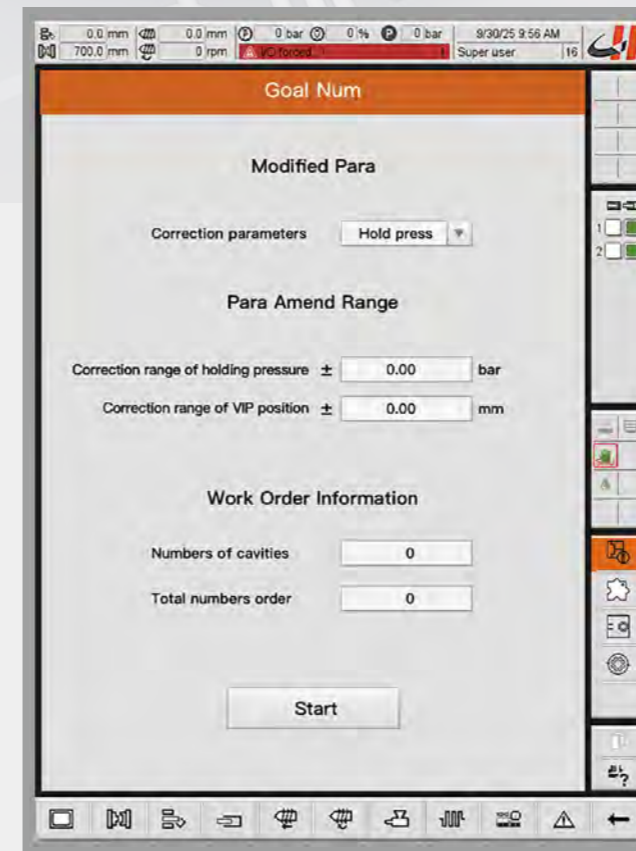
Configure the base product parameters and launch an AI-guided trial cycle.

AI Molder Smart Mass Production



Step 2

Finalize the setup by diagnosing the defect, selecting its type, and confirming the optimized parameters.



Intelligent Perception, Adaptive Optimization

AI Molder acts as a tireless **intelligent molding brain** for every machine. By monitoring real-time machine data, it **treats every mold cycle as an independent opportunity for optimization.**

Within milliseconds, the AI model compares and analyzes theoretical versus actual process parameters, executing **precise, automatic micro-adjustments** to critical phases like injection and holding pressure. This system proactively compensates for variations caused by environmental or material fluctuations, ensuring **consistency and precision in every shot.** This shifts quality control from a passive "post-production inspection" to an active "**in-process guarantee.**"

A

When a deviation between the real-time injection pressure curve and the standard curve is detected, the system adjusts the holding pressure to compensate for the discrepancy.

B

Intelligently adjusts the V-P switch position to correct deviations in shot volume.

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AI Molder in Action: Achieving Production Stability



Sanitary Ware Components



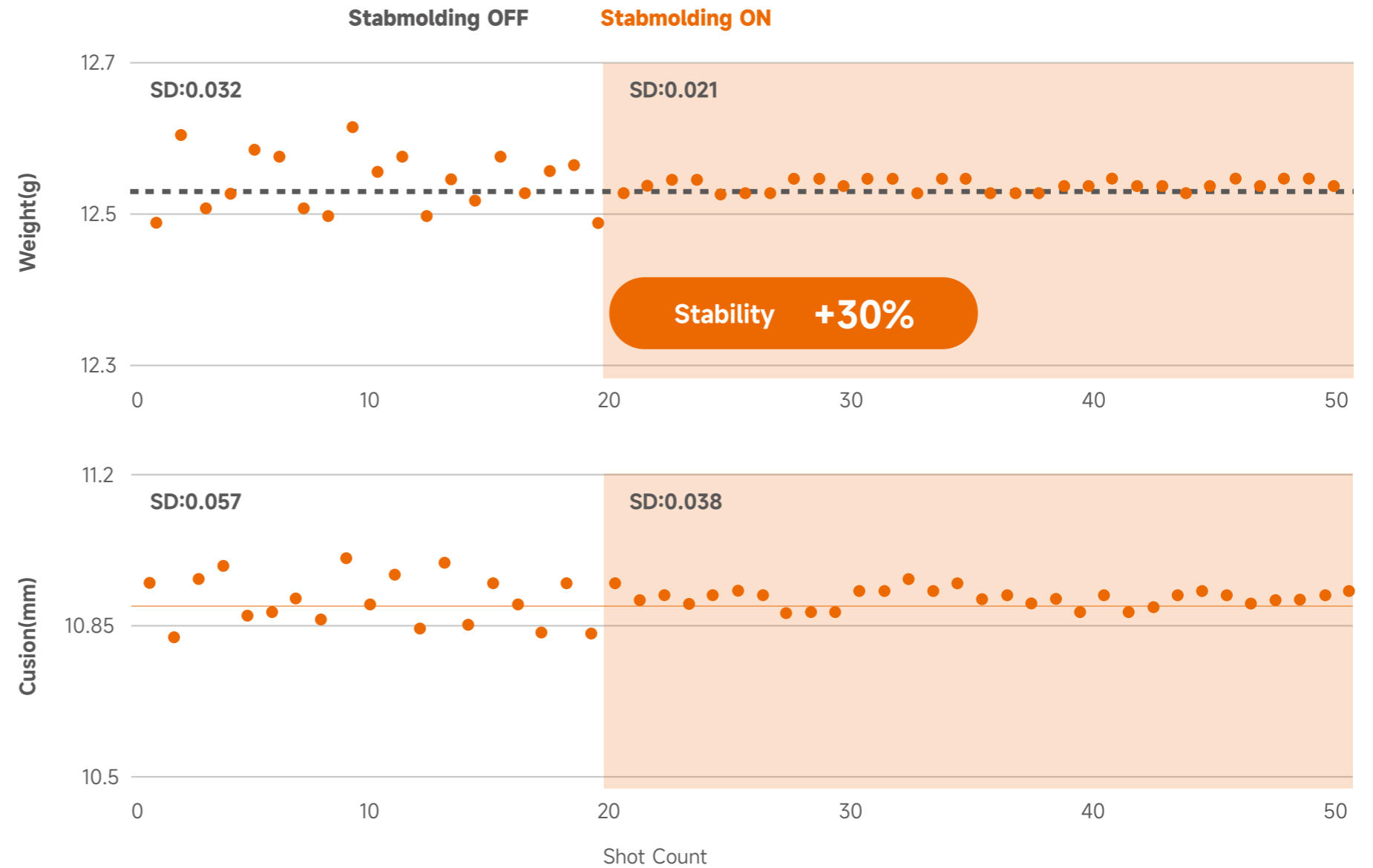
Series: SM150-EH



Material: PP



Cycle Time: 19.6 SEC



Precision Control, Rock-Solid Stability

By embedding AI algorithms directly into the production cycle, the Chen Hsong Intelligent Setup Assistant slashes variation in key process parameters (SD) by more than 30%. Experience a dramatic boost in yield and a steep drop in waste. We've moved beyond human-dependent consistency to machine-guaranteed stability, providing unmatched reliability and profitability for your operations.