XtalPi

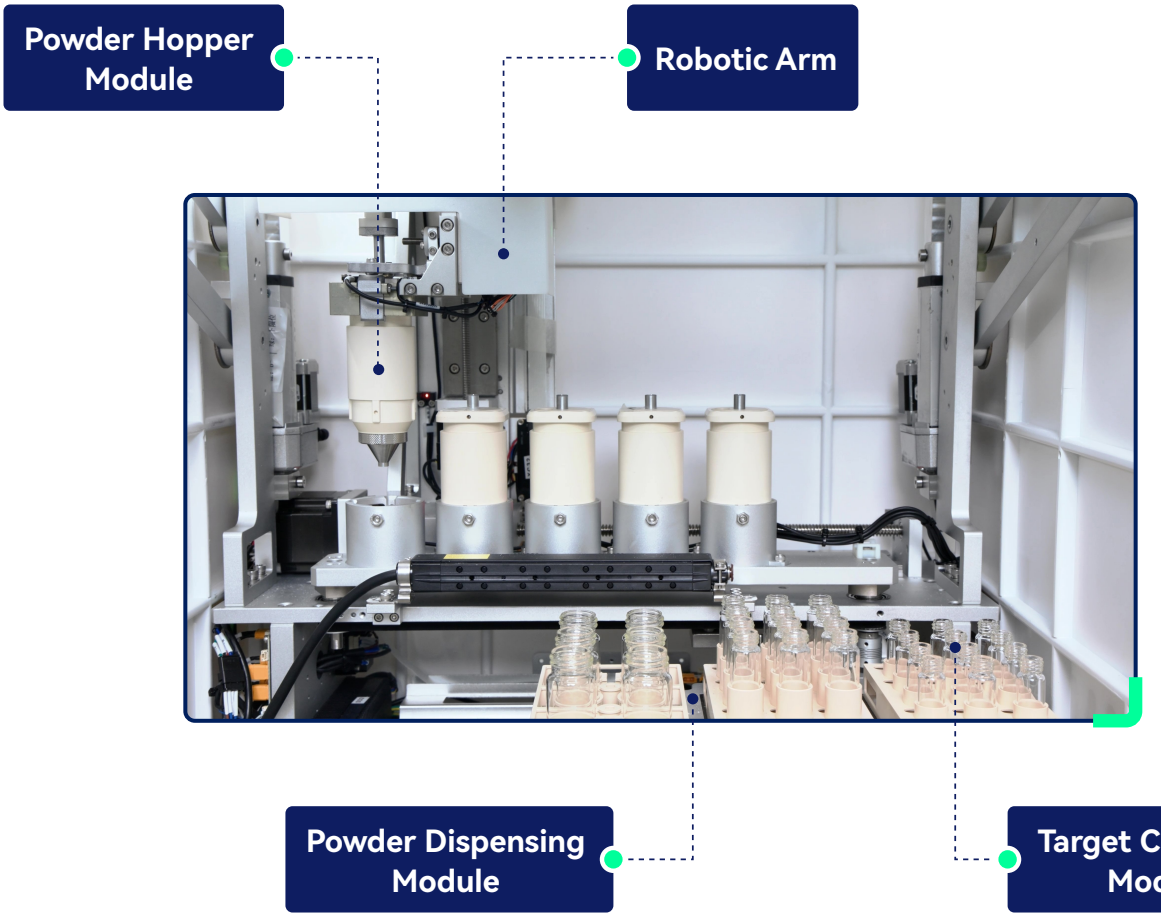
ChemPlus™ Desktop Solid Dispenser

PRECISE, EFFICIENT, USER-FRIENDLY

Product Introduction

In laboratories, precise weighing and dispensing solid samples—from milligram-level quantities to gram-scale batches—poses technical challenges, especially when handling hygroscopic, caking-prone, or lightweight, dusty materials. Traditional manual methods are inefficient, labor-intensive, and error-prone, directly compromising the reproducibility and reliability of experimental results.

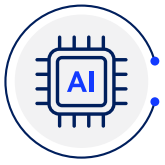
ChemPlus™ Desktop Solid Dispenser features intelligent design built around precise, efficient, and user-friendly, redefining solid weighing and dispensing. By automating repetitive manual tasks, it ensures result consistency and freeing researchers to focus on innovation.



Empowering Chemistry Research: From Tedious Manual Work to Intelligent Automation

Breakthrough Technology: Comprehensive Precision for Your Entire Experimental Workflows

- **Extended Weighing Range & High Precision**
  Supports 1 mg ~ 20 g weighing, with 0.1 mg resolution—ensuring stable, reliable performance for both milligram-level and gram-scale dispensing to meet diverse experimental requirements.
- **Broad Compatibility with Complex Samples**
  Requires no pre-treatment and efficiently dispenses various kinds of reagent powders, while integrated anti-static technology minimizes sample adhesion for accurate dispensing.
- **High-Throughput & Flexible Compatibility**
  Holds 5 powder hoppers simultaneously and fits various common lab vial sizes, significantly boosting parallel processing and high-throughput screening efficiency.



Intelligent Design: Transitioning from Experience-Driven to Algorithm-Powered Workflows

- **Self-Optimizing AI Dispensing**
  Automates parameter optimization through built-in deep learning algorithms, dynamically adjusting dispensing speed and vibration frequency to eliminate manual calibration while enabling intuitive operation for new users.
- **Simple and Visualized Interaction**
  Simplifies complex workflows via intuitive touchscreen software with guided step-by-step instructions, minimizing learning curves and turning intricate setups into efficient, user-friendly processes.
- **End-to-End Data Traceability**
  Captures sample data through integrated barcode/QR code scanning, automatically recording dispensed amounts and experimental details to generate compliant reports for end-to-end traceability.

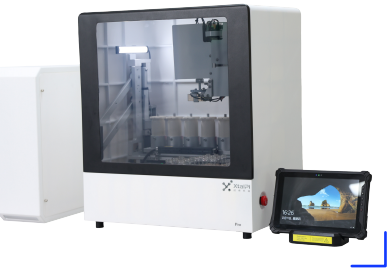
Lab-Optimized Design: Compact Footprint, Maximum Performance

- **Compact Benchtop Design**
  Small footprint fits directly on the lab bench, saving valuable workspace.
- **Easy Maintenance**
  Low cost consumables and simple routine upkeep ensure predictable long-term operating costs.

Technical Specifications

TAI-1000

Number of Powder Hoppers	10
Number of Trays	6*
Applicable Target Containers	2 mL × 24, 4/8 mL × 12, 20 mL × 6
Dispensing Range	1 mg ~ 20 g†, other ranges are customizable
Weighing Resolution	0.1 mg
Dispensing Accuracy	±0.5 mg†
Dispensing Parameters	Automatic parameter optimization without manual setting
Control Mode	Touchscreen
Barcode Scanning (optional)	Compatible with common 1D/2D barcodes/QR codes
Door Opening/Closing Method	Manual
Dimensions (W × D × H)	890 mm × 710 mm × 950 mm
Weight	200 kg



TAI-2000

Number of Powder Hoppers	5
Number of Trays	3*
Applicable Target Containers	2 mL × 24, 4/8 mL × 12, 20 mL × 6
Dispensing Range	1 mg ~ 20 g†
Weighing Resolution	0.1 mg
Dispensing Accuracy	±0.5 mg†
Dispensing Parameters	Automatic parameter optimization without manual setting
Control Mode	Touchscreen
Barcode Scanning (optional)	Compatible with common 1D/2D barcodes/QR codes
Door Opening/Closing Method	Automatic
Dimensions (W × D × H)	Main Unit: 565 mm × 420 mm × 665 mm Control Box: 170 mm × 400 mm × 500 mm
Weight	45 kg

* for different types of glass vials
† subject to the final testing results

Testing Data

Compatible with the vast majority of commonly used solid powders, including:

- Large Particles
- Fluffy Materials
- Poor-Flowing Powders
- Static-Prone Substances

Compounds	Features	Target Amount (mg)	Average Amount (mg)	RSD (%)	Dispensing Time (s)
 X-Phos	Poor-flowing	5.0	5.0	2.16	35
		10.0	10.0	0.91	38
		20.0	20.0	0.45	44
		100.0	100.0	0.09	53
 Sorbitol	Large particles	5.0	5.0	2.20	30
		10.0	10.0	1.80	28
		20.0	20.1	0.71	30
		100.0	100.2	0.15	31
 Magnesium Stearate	Static-prone	5.0	4.9	1.37	44
		10.0	10.0	0.79	50
		20.0	19.9	0.38	56
		100.0	99.9	0.12	89
 HATU	Hydroscopic	5.0	5.0	2.21	38
		10.0	10.0	2.51	43
		20.0	19.9	0.62	60
		100.0	100.0	0.12	79

* The above data is for reference only, the specific results are subjet to the testing of the samples.

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