

Smart Plate Handler



PORTFOLIO INTRODUCTION

The Smart Plate Handler is designed to create flexible integration of scientific instruments around a 4-axis collaborative arm and consumable stacker. The Smart Plate Handler can also be scaled to meet application-specific throughput requirements.

Scalable Throughput



Standard Throughput

- Fixed stack
- Robotic arm
- Scheduling software



Expanded Throughput

- Fixed stack + expanded fixed stack
- Robotic arm
- Scheduling software



Maximum Throughput

- Fixed stack + carousel
- Robotic arm
- Scheduling software

Galatek provides custom application-driven solutions by integrating the Smart Plate Handler with a wide range of commercially available devices. Automated scheduling completes each unique workflow.

Automated Plate Washing & ELISA	Automated High-Content Imaging	Automated qPCR Analysis	Automated Pipetting
			

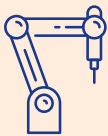
A Single Software Interface Synchronizes Each Workflow

Graphical Process Editing Interface: Enables edits without separate programming software

Scheduling: Automatically schedules multiple experiments to run in parallel, as device resources allow

Visualization: Gantt chart interface shows operation and resource utilization for each process

PRODUCT FEATURES



Robotic Arm

Controlled four-axis robotic arm with intuitive teaching points and safe performance for flexibility in sample transfer, consumables, and de-lidding



Devices & Accessories

Easy configuration of hundreds of validated devices to maximize efficiency



Data Processing

Extracts processed data for analysis supporting drag-and-drop graphs for experimental process editing



Visualization

Real time data visualization from integrated devices, displaying lab operation, status, error reports and more

PARAMETERS OF SMART PLATE HANDLER

Basic Parameters	Dimensions	500mm(W)*700mm(D)*1,212mm(H)
	Weight of Main Unit (Stand + Robotic Arm + 3 Stacks)	65kg
	Available Stack Types	• Available in 2 fixed stacks with wide-side gripping or 3 fixed stacks with narrow-side gripping, with optional random-access or sequential-access configurations for fixed stacks. • Additional configurations available for expanded fixed stacks or carousels
	Maximum Number of Plate Postions (Random-Access Stacks)	• 3 random-access fixed stacks, each with a capacity of 20 SBS sample plates: A total of 60 sample plates • 1 random-access carousel, with a capacity of 200 SBS sample plates: A total of 260 sample plates
	Maximum Number of Plate Postions (Sequential-Access Stacks)	• 3 sequential-access fixed stacks, each with a capacity of 25 SBS sample plates: A total of 75 sample plates • 1 random-access carousel, with a capacity of 200 SBS sample plates: A total of 275 sample plates
	Compatible Plate Types	SBS standard sample plates
	Minimum Transfer Time	10s
	Supply Voltage	220V, 50Hz
	Operating Environment	Temperature: 5-35°C, Humidity: 5%-95% (no frost)
	Extensibility	Sequential-access stacks, random-access stacks & carousels can be added to increase throughput
Robotic Arm	Maximum Load	500g
	Error Handling	Real-time automatic alerts for failures in plate gripping and incorrect placement
Barcode Scanner	Built-in scanning module in the robotic arm, compatible with common 1D & 2D codes	