NWSPEC | RELIABLE INSTRUMENT MANUFACTURING & SERVICES

NWSPEC PRODUCT BROCHURE

Fully Automated SPE System

PrepS Series · 2 / 4 / 6 / 8 Channels

A fully automated solid phase extraction platform for conditioning, sample loading, washing, blow-drying and elution. The PrepS Series provides 2, 4, 6 or 8 independent channels, processes up to 20–80 extraction columns by model and handles sample volumes up to 20 L. Editable methods and application-specific modules help standardize sample preparation while reducing manual handling.

2 / 4 / 6 / 8	20–80	20 L
INDEPENDENT CHANNELS	COLUMNS PER BATCH	MAXIMUM SAMPLE VOLUME



PrepS 4 shown · 4 channels · up to 40 extraction columns

Complete SPE Automation

Automates conditioning, loading, washing, blow-drying and elution with editable method parameters.

Independent Channel Operation

Multichannel sampling, needle cleaning and collection operate independently to limit cross-interference.

Enclosed Transparent Chamber

The transparent automatic door and enclosed structure support process observation and cleaner operation.

Anti-Backflow Flow Path

Flow-path design helps prevent reflux and supports stable pressure and precise liquid handling.

Small- or Large-Volume Loading

Small-sample loading is standard; an optional large-volume module supports sample volumes up to 20 L.

Broad Cartridge Compatibility

Racks and piston assemblies accommodate 1, 3, 6, 10, 12 and 20 mL SPE cartridges.

Advanced Extraction on PrepS 6 / PrepS 8

String-column, 47 mm membrane and combined membrane-column options extend application coverage.

Application-Flexible Configuration

Immunoaffinity column support, eight reagent channels, adjustable touchscreen and selectable flow-path materials adapt the system to the method.

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Technical Specifications

NWSPEC Fully Automated SPE System · Exact model comparison

Technical parameter	PrepS 2	PrepS 4	PrepS 6	PrepS 8
Number of channels	2	4	6	8
Maximum extraction columns	20	40	60	80
Maximum sample volume	20 L	20 L	20 L	20 L
Automatic quantitative concentration	1 / 3 / 6 / 10 / 12 / 20 mL	1 / 3 / 6 / 10 / 12 / 20 mL	1 / 3 / 6 / 10 / 12 / 20 mL	1 / 3 / 6 / 10 / 12 / 20 mL
Collection tube volume	10–50 mL	10–50 mL	10–50 mL	10–35 mL
Large-volume module	Supported; optional module	Supported; optional module	Supported; optional module	Supported; optional module
Immunoaffinity column	Supported	Supported	Supported	Supported
String module / membrane extraction	Not listed	Not listed	Supported	Supported
Reagent channels	8	8	8	8
Touchscreen	Angle adjustment supported	Angle adjustment supported	Angle adjustment supported	Angle adjustment supported
Maximum inlet pressure	0.7 MPa (100 psi)	0.7 MPa (100 psi)	0.7 MPa (100 psi)	0.7 MPa (100 psi)
Power supply	AC 100–240 V, 50/60 Hz	AC 100–240 V, 50/60 Hz	AC 100–240 V, 50/60 Hz	AC 100–240 V, 50/60 Hz
Overall power	100 W	120 W	130 W	140 W
Gas supply	High-purity nitrogen or other inert gas recommended	High-purity nitrogen or other inert gas recommended	High-purity nitrogen or other inert gas recommended	High-purity nitrogen or other inert gas recommended
Operating environment	Ambient to 40 °C; 20–80% RH, non-condensing	Ambient to 40 °C; 20–80% RH, non-condensing	Ambient to 40 °C; 20–80% RH, non-condensing	Ambient to 40 °C; 20–80% RH, non-condensing
Noise	50 dB	50 dB	50 dB	50 dB
Dimensions (L × W × H)	473 × 600 × 731 mm	593 × 600 × 731 mm	773 × 600 × 731 mm	773 × 600 × 731 mm
Machine weight without parts	About 72 kg	About 90 kg	About 110 kg	About 115 kg
Flow path	PTFE standard; PEEK or metal optional	PTFE standard; PEEK or metal optional	PTFE standard; PEEK or metal optional	PTFE standard; PEEK or metal optional
Certification	CE	CE	CE	CE

Specifications apply to the four listed PrepS variants. Large-volume loading is supported on every model and is ordered as an optional module. String-column and membrane-extraction options apply to PrepS 6 and PrepS 8.

PrepS 2 — Compact Two-Channel SPE

Two channels and up to 20 columns per batch, with the smallest footprint and 10–50 mL collection-tube range.

PrepS 4 — Routine Four-Channel SPE

Four channels and up to 40 columns per batch. A practical balance of throughput, collection flexibility and bench space.

PrepS 6 — Expanded Method Capability

Six channels and up to 60 columns, adding string-column and 47 mm membrane-extraction options.

PrepS 8 — Highest Channel Count

Eight channels and up to 80 columns, with PrepS 6 / PrepS 8 advanced extraction options and a 10–35 mL collection-tube range.

Typical applications

Water samples, blood, food and beverage, soil, testing laboratories, pharmaceutical analysis and other automated solid phase extraction workflows.

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Order Guide

Configure the PrepS Series around channel count, cartridge format, collection volume and extraction method

1. Select Model and Extraction Format

NWSPEC model	Collection rack options	Cartridge / piston configuration	Advanced extraction options
PrepS 2	16 × 125 mm tube rack; 50 mL quantitative concentration-tube rack	1, 3, 6, 10, 12 or 20 mL SPE column rack with cartridge-specific piston assembly	Not listed
PrepS 4	16 × 125 mm tube rack; 50 mL quantitative concentration-tube rack	1, 3, 6, 10, 12 or 20 mL SPE column rack with cartridge-specific piston assembly	Not listed
PrepS 6	16 × 125 mm tube rack; 50 mL quantitative concentration-tube rack	1, 3, 6, 10, 12 or 20 mL SPE column rack with cartridge-specific piston assembly	String-column racks; 47 mm membrane or membrane-and-column modules; universal collection rack
PrepS 8	16 × 125 mm or 20 × 150 mm tube racks	1, 3, 6, 10, 12 or 20 mL SPE column rack with cartridge-specific piston assembly	String-column racks; 47 mm membrane or membrane-and-column modules; universal collection rack

2. Select Consumables and Method Accessories

Consumable group	Available formats
SPE cartridges	C18 and HLB; 1, 3, 6, 10, 12 or 20 mL
Collection tubes	16 × 75, 16 × 100, 16 × 125 or 20 × 150 mm
Quantitative concentration tube	50 mL with 0.5 / 1.0 mL tail tube
PrepS 6 / PrepS 8 string-column racks	1, 3, 6, 10 or 12 mL
PrepS 6 / PrepS 8 membrane format	47 mm membrane extraction; combined membrane-and-column extraction

3. Complete the Operating System

Model-specific main unit and operation software; waste-solvent filtration and small-sample loading modules; SPE column rack and cartridge-specific piston assemblies; collection rack and height block; optional large-sample loading module for volumes up to 20 L; high-purity nitrogen or other suitable inert gas supply; one-year host warranty.

Recommended Starting Points

Compact Routine SPE — PrepS 2

Choose PrepS 2 for two-channel batches up to 20 columns. Add the cartridge rack, piston assemblies and collection racks required by the method.

General-Purpose Laboratory — PrepS 4

Choose PrepS 4 for four-channel batches up to 40 columns. Use 16 × 125 mm collection tubes or 50 mL quantitative concentration tubes; add large-volume loading when needed.

Multi-Method Laboratory — PrepS 6

Choose PrepS 6 when six-channel throughput and string-column or 47 mm membrane extraction are required.

Highest Throughput — PrepS 8

Choose PrepS 8 for eight channels and up to 80 columns. Confirm the 10–35 mL collection range and select 16 × 125 mm or 20 × 150 mm tube racks.

Selection Questions

- How many channels and columns are required per batch?
- Which cartridge size and sorbent does the method use?
- What is the maximum sample loading volume?
- Which collection tube or final-volume format is required?
- Are immunoaffinity, string-column or membrane methods required?
- Is PTFE, PEEK or metal preferred for the flow path?

Workflow integration

Pair automated SPE with NWSPEC nitrogen or parallel vacuum evaporation to create a coordinated extraction, cleanup and concentration workflow.

Order Checklist

01	02	03	04	05	06
Select PrepS 2, PrepS 4, PrepS 6 or PrepS 8 by channel and batch requirements.	Specify cartridge size, sorbent, rack and piston assemblies.	Select collection tubes, racks and height block.	Add large-volume, string-column or membrane modules as applicable.	Confirm flow-path material, gas supply and laboratory utilities.	Confirm consumables, warranty and delivery details with NWSPEC.

NWSPEC configuration support: Final selection should be checked against the extraction method, sample matrix and volume, cartridge format, collection requirement, advanced extraction modules and available bench space.

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