

# PreeKem EXTRA

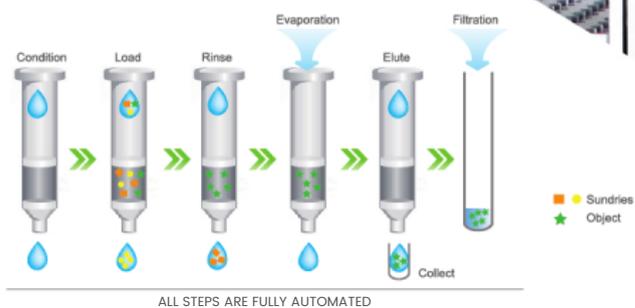
AUTOMATED SOLID PHASE EXTRACTION SYSTEM

FROM SCRATCH  
START SAMPLE PREPARATION  
INTELLIGENT ERA





## Easy Set up



## EXTRA INTRODUCTION

The Preekem Extra is an automated solid phase extraction system that can extract analytes of interest from large volume aqueous samples easily and efficiently. The system has a simple set up process providing hands free solvent operation.

The Extra automates the four steps of SPE (conditioning, loading, rinsing, and eluting). This reduces solvent consumption reducing the cost per assay and improves the reproducibility and recovery of results.

The instrument can be configured with 1, 3, or 6 mL SPE columns and can automatically load liquid samples on the SPE sorbent and then extract specific compounds by using different solvents. The Extra provides a flexible sample loading process and can have up to 11 different types of solvents available during extractions.

### Intelligent

The Extra features a unique pressure system which monitors real-time SPE column pressure and will provide warning alerts should the pressure exceed specified limits.

### Precise

A positive pressure syringe pump provides unprecedented accuracy and repeatability in a parallel analysis configuration.

### Reliable

The mechanical arms of the unit use a dual helix screw drive system to provide accurate X/Y/Z positioning.

### User Friendly

The user interface has been designed to provide quick and easy operation.

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### Technical Parameters

Power Supply: 220-240V, 50hz, 5A

Parallel Sample Unit: 1-4

Sample Rack: 12, 24, 48, 80, 108

Solvent Sources: Max 11

Waste Collection: Individual waste water and organic waste channels

Working Temperature: 5-40°C

Working Humidity: 15% - 80% RH

Size: 650mm (H) x 810mm (W) x 680mm (D)

Weight: 70Kg

# MAIN FEATURES

## 1 High precision dual-helix control arm

Precise 3D positioning of probes for liquid transport. The outer metal and plastic panels provide the internal components protection against solvent damage.



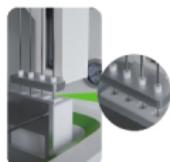
## 2 High quality syringe pump & valve

The ceramic valve and syringe pump combination effectively eliminates sample cross-contamination.



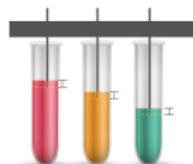
## 3 Automated probe washing

A combination of solvents can be used during the washing process cleaning both the inner and outer probe surfaces.



## 4 Patented liquid level tracking

Needle depth is controlled to sense the liquid level in the vessel. Real-time pressure readings from the probe tip allow it to stop once it has reached the bottom of the vessel.



## 5 Intelligent pressure protection mechanism

Pressure in the SPE column is monitored and can perform a pump stop should the pressure reach an excessive level.



## 6 Drying and evaporation

Evaporation and drying is completed using an external gas source which is controlled by an electromagnetic solenoid valve.



## 7 Intelligent waste collection

Liquid and organic wastes are collected separately, allowing proper waste disposal.

## 8 Sample loading loop

The sample loading loop isolates injected liquids from contact with the pump and valve mechanism.



## 9 Multi-solvent handling

The syringe probe can supply up to 7 types of solvents (>1L each) while the needle probe can load up to 4 types.



# EXTRA

## SPECIFICATIONS

Gas regulator and gas gauge range	Output: 0–30 psi, Input: 1 Mpa (approximate 145psi)
Net weight	70 kg
Dimensions (h × w × d)	810mm (length) × 680mm (width) × 650mm (height) Sample rack:
Method memory	More than 5000 methods can be stored.
Electrical	Voltage: 220–240V AC, Frequency: 50Hz Power: 300W
Liquid management	Four 10mL syringe pumps form four independent working channels for liquid handling. Four 9–port corrosion resistant ceramic valves 3–way valve; Corrosion resistant Teflon Core Nozzles: 316L stainless steel Tubing: FEP
Sample pumps	Displacement: Positive Accuracy: ± 0.5% C.V: ± 0.05%
Solid phase extraction configurations	1 mL SPE column 3 mL SPE column 6 mL SPE column Collection tube: 10 mL or 15 mL collection tube

Items	Sample volume	SPE column	Batch process ability
1	0.1–3mL	1mL/3mL/6mL	108/80/64
2	0.1–12mL	1mL/3mL/6mL	108/80/64
3	0.1–28mL	1mL/3mL/6mL	96/60/48
4	20–50mL	1mL/3mL/6mL	48/40/32
5	>50 mL	1mL/3mL/6mL	24



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