

# CHROMATOGRAPHY SAMPLE PREPARATION MADE **EASY.**

Resolvex® Prep.



## WHAT IS THE **RESOLVEX PREP**?

The Resolvex Prep Sample Preparation workstation is a cutting-edge solution that sets a new standard for analytical chemistry laboratories. Empowered by a suite of innovative technologies, this instrument automates chromatography sample preparation to vastly simplify and accelerate workflows.

### **Simplicity in operation**

The Resolvex Prep workstation offers a fully automated, end-to-end solution for chromatography sample preparation. Prepare your samples with ease and precision directly in an autosampler rack, and seamlessly transfer the rack for analysis once completed. This significantly simplifies the sample handling process, increasing workflow efficiency and accuracy while reducing costs and environmental impact by minimizing solvent consumption.

### **Heightened flexibility**

The instrument is designed with a modular deck layout, providing unique flexibility by accommodating interchangeable positions for common laboratory sample and autosampler racks. Set-up becomes easy with preconfigured deck Adapter Plates, as they enable swift transitions between various sample types and workflows.



### **Unrivaled precision and accuracy**

The system uses analytical syringes to significantly improve the reliability and accuracy of sample preparation. Effortlessly select from a choice of 12 different syringes and tools, with seamless transitions enabled by a state-of-the-art automated tool change system. This allows you to tailor your processes specifically to your needs, while ensuring precision and consistency, empowering you to achieve exceptional results with every task.



### The right tool for the task

The patented rotating foot grants the Resolvex Prep workstation many operational advantages, including automated tool change with standard syringes, automated  $\mu$ SPE, syringe disk filter automation, radio-frequency identification (RFID) scanning of deck and tool assets, and controlled piercing of septa. RFID combined with proximity sensors allows the system to automatically detect the position of these components, cross-referencing the data with workflow parameters to further minimize the risk of errors. Enjoy peace of mind with this intelligent feature, and know that the system's cutting-edge automation enhances accuracy and reproducibility, ensuring reliable outcomes in every experiment.



### Built-in wash station

The Resolvex Prep workstation also includes an in-deck wash station, which can be intelligently integrated into your workflows. This feature automatically primes and washes syringes, virtually eliminating detectable carry-over and ensuring safe waste disposal.



### Effortless set-up, operation and customization

Tailoring the system to meet your specific sample preparation requirements is a breeze, thanks to the diverse range of tools, accessories and consumables available. This makes it possible to configure the instrument with ease to suit the unique demands of your research.



## User-friendly interface and automation

The Resolvex Prep workstation can be up and running in less than an hour, thanks to its user-friendly and intuitive interface and automated calibration procedures. Smart software empowers users to swiftly create new workflows through a simple drag-and-drop function, where you can select the required hardware, such as syringes, vials, racks and more. Predefined coordinates further reduce set-up time, allowing you to focus on your research with minimal delays.

## The Resolvex Prep workstation features an array of pre-programmed processes, including:

- Sample aliquoting
- Addition of diluents
- Addition of reagents
- Addition of surrogate and internal standards
- Serial dispensing
- Making up to volume
- Serial dilution
- Syringe mixing
- Liquid transfers
- Magnetic stirring
- SPE and  $\mu$ SPE
- Liquid-liquid extraction

## High quality results and efficiency for every sample batch

The Resolvex Prep is engineered to handle any batch size – from 5 to 50 samples – with the same high level of efficiency and accuracy. Transform your laboratory with unrivaled analytical precision, adaptability, and advanced automation, allowing you to streamline your workflows and improve productivity.

## SPECIFICATIONS

### Resolvex Prep Sample Preparation workstation

Liquid handling precision	Typically 0.5 % RSD @ 5 % total syringe volume Mechanical: $\pm 50$ $\mu\text{m}$ plunger displacement precision
Liquid handling accuracy	Less than $\pm 1$ % of total syringe volume with an uncalibrated syringe
Carry-over	An integrated wash station is used to control carry-over for multi-use liquid handling tools. The amount of carry-over depends on the syringe type, sample characteristics and user-settable parameters in the software.
Syringe volume range	Minimum volume: 1 $\mu\text{l}$ (precision of lower volumes based on operating conditions) Maximum volume: >10 ml per dispense with unlimited volume achievable using multiple aspirate/dispense cycles
Flow rates	10 $\mu\text{l}$ syringe: 1 $\mu\text{l}/\text{sec}$ – 30 $\mu\text{l}/\text{sec}$ 100 $\mu\text{l}$ syringe: 1 $\mu\text{l}/\text{sec}$ – 300 $\mu\text{l}/\text{sec}$ 1,000 $\mu\text{l}$ syringe: 1 $\mu\text{l}/\text{sec}$ – 600 $\mu\text{l}/\text{sec}$ 10,000 $\mu\text{l}$ syringe: 5 $\mu\text{l}/\text{sec}$ – 650 $\mu\text{l}/\text{sec}$

### Operational information

Deck capacity	Total 16 (16P) x 1P deck spaces available. Space is used to accommodate Adapter Plates available in variable sizes from 1P to 6P configurations.
Laboratory	Sealed vials, meaning a cover is not required. Suggest a well-ventilated and climate-controlled environment. Take appropriate safety precautions if using toxic materials.
Software	Resolvex Prep Control Software for workflow development. Available in English only, with updates available over the instrument's lifespan.
Connectivity to instrument	USB
Wash station	Deck-mounted syringe wash station. The pump is driven by active waste removal. External solvent and waste reservoirs (not supplied).
Asset identification	RFID identification on syringes, tools and racks

### System information

Instrument dimensions (L x W x H)	1,370 mm x 694 mm x 743 mm
Weight	65 kg
Voltage	24 V, 221 W, 9.2 A DC power pack; 100-240 V AC input. Requires country specific IEC C13 power cable (not supplied)
Connection ports	3 x serial comms, 4 x digital output, 4 x digital input, 4 x relay
Operating temperature	10-35 °C, 0-80 % relative humidity
Operating sound level	Typical 80 dB
Compliance	CE, FCC, IC, RCM, RoHS, Safety EN 61010, EMC 61326

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