

# APS-1650

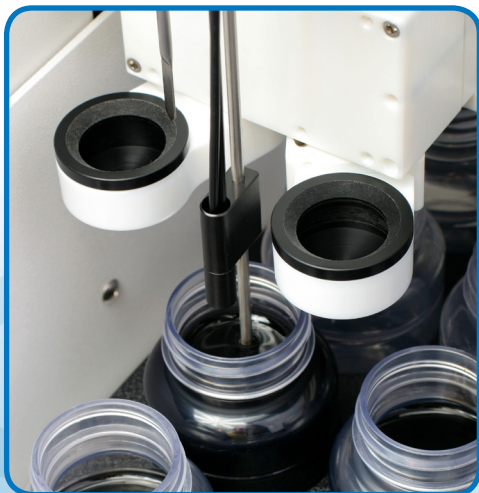
## Automated Prep Station

Fully automated  
offline dilution  
system for the  
preparation of  
oil samples



Pre-analysis preparation of oil samples is achieved via a relatively simple dilution process. Manual dilution is time consuming, labor intensive and carries the potential for human error. Eliminate all of these concerns with this high throughput dilution system for oil samples

The APS-1650 Automated Preparation Station is designed to ensure fast, accurate sample dilutions in a small footprint which saves time and bench space. Multiple sample, diluent, rinse and rack options are easily selected through the software, freeing laboratory personnel and eliminating errors.



### Fast

Average time for sample dilution with this system is as low as 35 seconds. Up to 90 oil samples can be diluted in one unattended run.

### Accurate

Computer controlled syringe dispenses consistent dilutions. Built-in stirring paddle ensures proper mixing of samples, leading to more precise results.

### Efficient

A liquid level sensor automatically controls probe depth into the oil sample which reduces the necessary rinse solvent and reduces overall preparation time.

### Clean

Dual independent drip cups beneath the sample probe and stirring paddle eliminate cross contamination and messy drips.

### Flexible

User-friendly software provides quick and easy laboratory configuration with multiple options for sample, diluent, rinse, stirring, and rack settings.



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## Liquid Level Sensor

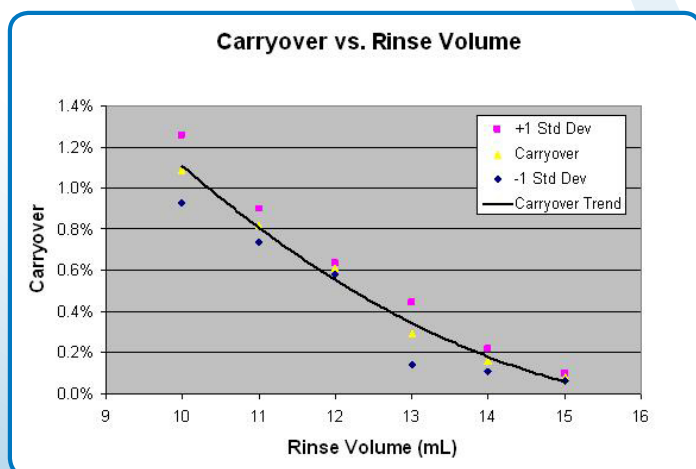
The unique liquid level sensor uses calibrated fiber optics to determine the level of the oil in the sample bottle. From this the tip of the probe is only allowed to go to a depth of around 3 mm below the surface of the oil and the probe will follow the liquid down as the sample is taken up by the dilutor. This reduces the wash time and amount of solvent used to wash the tip of the of the sample probe.

## Reduced Carry Over

The volume of solvent used to rinse the tip of the probe can be set by the user to reduce the carry over. The bevel-tipped stainless steel probe creates a turbulent flow inside the probe for more effective sample rinse out. This in combination with the liquid level sensor ensures that carry over is minimal.

## Flexible Rack Configuration

The sample racks vary in size from 45 positions which hold 4 oz bottles to 90 position racks that hold 2 mL cups. The rack configuration is defined with the associated wizard based software. The software allows for dilution methods and sequences to be stored and recalled.



**Customizable rinse volume setting determines percentage of carryover with typical carryover of less than 0.2%.**

## Technical Specifications

### Autosampler Dimensions:

**Height:** 70 cm (27.5")  
**Width:** 110 cm (43.3")  
**Depth:** 70 cm (27.5")  
**Weight:** 30 kg (66 lbs)

### Syringe Module Dimensions:

**Height:** 26.7 cm (10.5")  
**Width:** 14 cm (5.5")  
**Depth:** 20.3 cm (8")  
**Weight:** 4.5 kg (10 lbs)

### Viscosity Range

up to 700 cSt

### Computer/Hardware Interfaces:

RS-232, USB

### Power Requirements:

AC 100V-240V, 3.2A

### Sample Rack Options:

45 position 2 oz and 4 oz bottles;  
80 and 90 position 2 mL cups

### Collection Rack Options:

80 position 15 mL (17 mm x 100 mm);  
90 position 8 mL (13 mm x 100 mm)

### Warranty:

2 year limited

### Minimum Computer Requirements

Windows Vista or higher  
1 GB RAM.  
Video resolution of 1024 x 768 or higher  
2 Free COM or USB ports  
Adobe® Acrobat® Reader is required to read the manuals that accompany the software.  
Internet Explorer 6 or higher must be installed for system to function properly