



# BIS V FLeX Jr™ LIQUID HANDLING SYSTEM

**Conserve Bench Space, Work In the Vertical Dimension**  
A Compact and Robust Automated Vertical Liquid Handling System  
for Solid Phase Extraction & DNA/RNA Extraction



**Bio Integrated Solutions Inc**  
**331 South Eisenhower Lane # A, Lombard IL 60148**  
(847) 712-3085 ; (847) 202-1047 (FAX)  
[www.biointsol.com](http://www.biointsol.com)



## **Modular, Flexible Layout**

**(4 Probe Independent Movement, Variable Span: 9 – 27 mm,  
Integrated Grippers and Dual Manifold)**

- Modular Vertical configuration with small footprint facilitates ability to add external modules without requiring more bench space.
- External bulk reagent dispensing ( 25 ml – 10 ml), saving critical desk space and significantly increasing the throughput supporting organic and inorganic buffers for SPE applications with integrated 8 way valve (upto 6 buffers excluding system fluid).
- Disposable Tips to ensure sample integrity ( 1000 ml – 20 ml).
- Four probe with independent axis configurations enables cherry picking for use with 96-well plates and test tubes with optional variable span. The flexible format supports 384-well plates, test tubes, other types of vials.
- Gripper Hand Option facilitates transfer of manifold top or tubes or vials for fully unattended operation using the dual vacuum manifold.
- 3 Level vacuum control for columns, and pulsing vacuum for plates that enables low elution volumes (100 ml). PID controlled vacuum provides uniform reproducible vacuum conditions, independent of the number of samples being processed
- Intuitive and Flexible Software Interface for SPE and Drug Discovery Applications ideal for production and methods development.
- Enclosed system designed to handle chemical vapors, hood compatible.

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Hardware Command Log   Assay Definition   Run Log

Condition   Sample Transfer   Wash   Elution

Please click on a wash step to edit it

Volume (microliters)	Vacuum Levels, Vacuum Duration (inches Hg), (seconds)			(Step #)	Fluid	Reagent (R) / Line Flush (LF)
	1	2	3			
2000	2.0, 20	4.0, 30	0.0, 0	(1)	D.I. H2O	(R)
3000	0.0, 0	0.0, 0	0.0, 0	(2)	Methanol	(R)
2000	2.0, 20	0.0, 0	0.0, 0	(3)	Methanol	(R)

Edit the currently selected wash step

(Step #)   Reagent / Line Flush   (1) D.I. H2O   Up

Volume (microliters)   2000   ☒ Reagent   ☐ Line Flush   Down

Vacuum Level (inches Hg)   1   2.0   2   4.0   3   0.0   Delete

Vacuum Duration (seconds)   1   20   2   30   3   0

- Solid Phase Extraction (SPE)
- Sample transfer of Test Tube and/or Vials for Micro plates.
- DNA/RNA Purification, PCR Preparation, Enzyme Reaction Setup.
- Magnetic Bead Separation.
- Re-formatting, Cherry-Picking, Low Volume Dispensing.

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Instrument Configuration	V FLeX Jr 4x2 FIXED™	V FLeX Jr 4x2™
Dimensions W x D x H H is Top of Instrument	20.00" x 20.00" x 30.00" 50 cm x 50 cm x 75 cm	20.00" x 20.00" x 30.00" 50 cm x 50 cm x 75 cm
Number of Probes	4 Probes Fixed Spacing (9 / 18 mm)	4 Probes Variable Spacing (9 – 27 mm)
Tip Types Probe Management	Fixed Washable Stainless Steel Probe Compatible with Disposable Tips(10, 20, 200, 1000 µl) Low Volume Probes; OPTIONAL	Fixed Washable Stainless Steel Probe Compatible with Disposable Tips(10, 20, 200, 1000 µl) Low Volume Probes; OPTIONAL
Bulk Reagent Dispensing	STANDARD	STANDARD
Bulk Reagent Aspiration	STANDARD	STANDARD
Multi Channel Valve	OPTIONAL	8 way valve STANDARD
Liquid Level Detection	OPTIONAL	OPTIONAL
Variable Span	NA	OPTIONAL
Gripper	OPTIONAL	OPTIONAL
Barcode	OPTIONAL	OPTIONAL
Syringe	Continuous Flow, Solvent Compatible for SPE Applications, LV Tips available 1.0 % CV, 2.5% Accuracy @ 20 µl 5.0 % CV, 7.0% Accuracy @ 5 µl	Continuous Flow, Solvent Compatible for SPE Applications, LV Tips available 1.0 % CV, 2.5% Accuracy @ 20 µl 5.0 % CV, 7.0% Accuracy @ 5 µl
Carryover	Less than 10 <sup>-6</sup> using Teflon Coated Stainless Steel Probes	Less than 10 <sup>-6</sup> using Teflon Coated Stainless Steel Probes
Positioning Accuracy	All Axes -0.10 mm (0.004 inch) 0.10 mm (0.004 inch) Auto Aligning	All Axes -0.10 mm (0.004 inch) 0.10 mm (0.004 inch) Auto Aligning
Computer Specifications (Included with the system)	PC Pentium II or Better, 512 Mbytes RAM Monitor VGA (800 x 600) RS-232 Serial Ports, USB, Windows 2000 / NT Compatible	PC Pentium II or Better, 512 Mbytes RAM Monitor VGA (800 x 600) RS-232 Serial Ports, USB, Windows 2000 / NT Compatible
External Interfaces	TTL Input / Output Pins 24 VDC Power Inputs Relays for External Devices	TTL Input / Output Pins 24 VDC Power Inputs Relays for External Devices
Power Supply Requirements	90 – 260 VAC Auto Selecting, 50 – 60 Hz, 450 / 625 Watts	90 – 260 VAC Auto Selecting, 50 – 60 Hz, 450 / 625 Watts
Regulatory Standards	Designed for Compliance with CE & CSA standards	Designed for Compliance with CE & CSA standards
Configuration Options	Heating / Cooling Stations Magnetic Bead Labware Shakers, LV & Septum Piercing Tips	Heating / Cooling Stations Magnetic Bead Labware Shakers, LV & Septum Piercing Tips
Pricing Information	OEM Packages Available (847) 712-3085; info@biointsol.com	OEM Packages Available (847) 712 3085; info@biointsol.com

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