



## ***The VPrep<sup>®</sup> delivers industry leading speed and unparalleled performance for sample handling and liquid transfer applications.***

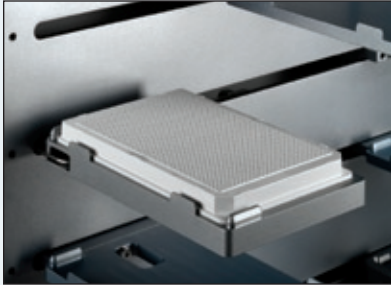
In a unique, benchtop-saving design, the VPrep accesses 8 shelf positions quickly and efficiently while requiring only a 26 cm x 38 cm footprint. A high precision digitally encoded servo motor design allows the pipetting head to move rapidly and accurately between the positions, greatly accelerating all liquid handling procedures. This design provides a level of precision not available in most liquid handlers, performing reliable dispenses down to 10 nL. Whether operating as a stand-alone device or integrated into a lab automation system, the VPrep will exceed your expectations.



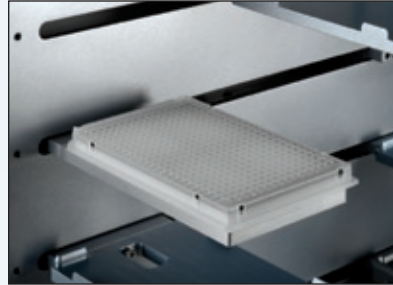
## Accessories

VPrep shelves are configurable and customizable. Velocity11 has developed a growing line of optional equipment to provide a broad range of application specific solutions. The shelves of the VPrep can be equipped to accommodate filter plates, temperature control, plate shaking, magnetic positions or vacuum clamps for flexible PCR plates. A plate locating shelf can accurately position a 1536 well microplate for precision dispensing at volumes as low as 10 nL.

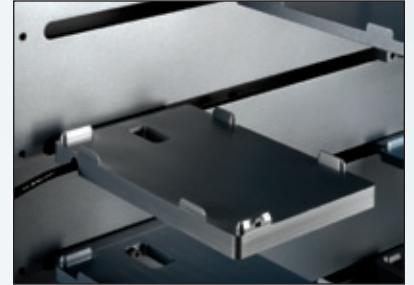
The integrated Pump Module automates handling of bulk reagents and wash solutions. The Velocity11 Pump Module expands the VPrep system by adding two independently controlled peristaltic pumps with the ability to monitor the liquid levels. With the addition of a weigh shelf, reagent reservoirs are automatically monitored and re-filled as required. All tubing and reservoirs are made of DMSO-compatible materials.



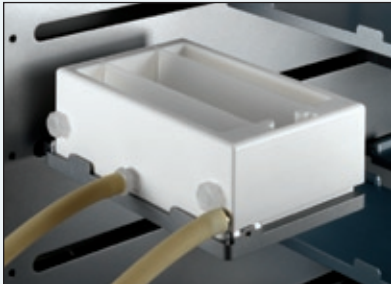
**1536 Plate Alignment Shelf**  
Accurately positions 1536 well plates for precision pipetting.



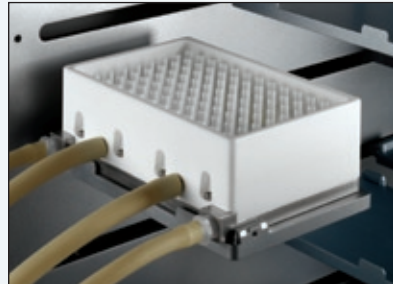
**Microplate Vacuum Shelf**  
Secures microplates in applications where plates are prone to lifting off the shelf during pipetting



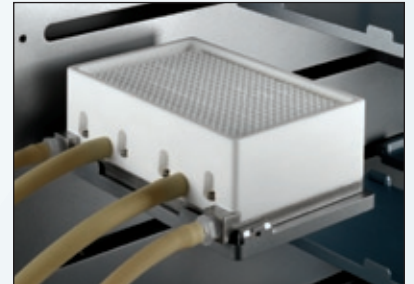
**Weigh Shelf**  
Automatically monitors and maintains the liquid level within the Auto Filling Reservoir



**Auto Filling Reservoir**  
When used with a Pump Module, provides a continuous programmable supply of reagents



**96 Well MicroWash Reservoir**  
When used with a Pump Module, provides low carryover washes and minimized waste.



**384 Well MicroWash Reservoir**  
When used with a Pump Module, provides low carryover washes and minimized waste.



**Manual Fill Reservoir**  
Unique design minimizes fill volume of precious reagents. Available in 96 and 384 well models.



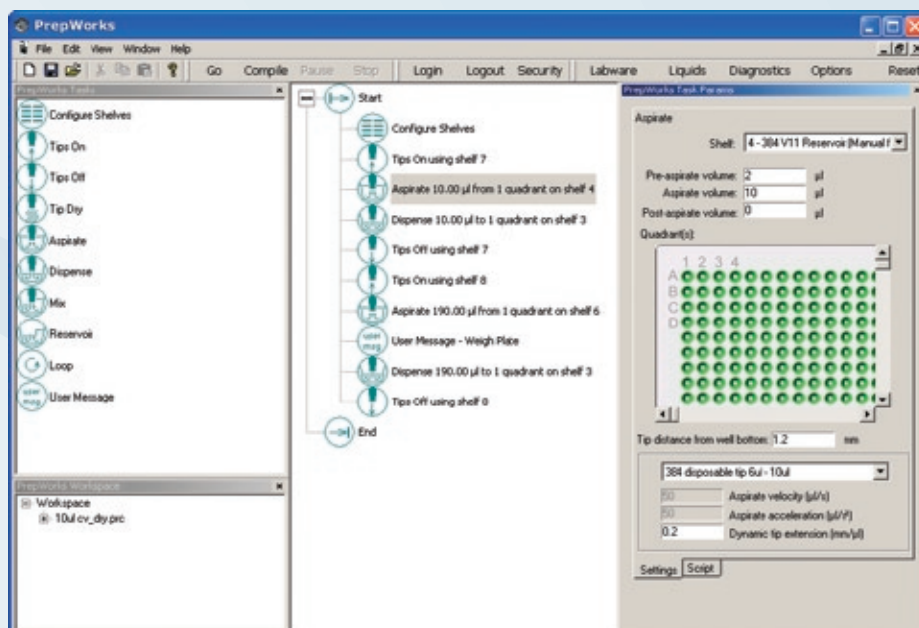
**Septum Tube Stripper Plate**  
Secures septum tubes in rack when removing fixed tips.



**Pump Module**  
Two peristaltic pumps provide a flow rate range of 20 mL/min to 500 mL/minute to continually supply Auto Filling and Micro-Wash Reservoirs. Flow rate and pump timing are controlled from within the PrepWorks application.

## PrepWorks Software

The value of the VPrep lies in its speed and precision. PrepWorks provides experienced operators with options for controlling every detail of the pipetting procedure. Users have control over volume calibration factors, pipetting speeds and accelerations, tip touching as well as fine control over the motion of the head and tips into and out of individual pieces of labware as required. With these and other features, the VPrep can meet the most demanding liquid handling applications.



## Pipetting Performance

When the power of PrepWorks is coupled with the precision engineering of Velocity11 fixed or disposable pipette tips, the result is industry leading pipetting performance. Velocity11 pipette tips are built to exacting standards, providing users with confidence in their liquid transfer precision and accuracy. The following tables highlight the performance you can expect from a VPrep. In some cases, end users routinely obtain results that out perform this data. Contact your Velocity11 sales representative for details data for each of these transfer scenarios.

### ST 30µL – Disposable Tip

Volume (µL)	Transfer Type	CV (%)
0.5	wet	2.8
	dry	3.9
1.0	wet	2.7
	dry	3.4
10.0	wet	1.0
	dry	1.3
30.0	dry	1.0

### ST 50µL – Disposable Tip

Volume (µL)	Transfer Type	CV (%)
0.5	wet	3.0
	dry	3.9
1.0	wet	2.7
	dry	2.8
50.0	dry	2.4

### LT 60µL – Disposable Tip

Volume (µL)	Transfer Type	CV (%)
0.5	wet	2.5
	dry	3.0
2.0	wet	1.7
	dry	3.1
60.0	dry	1.4

### LT 200µL – Disposable Tip

Volume (µL)	Transfer Type	CV (%)
2.0	wet	2.2
	dry	6.3
50.0	wet	2.1
	dry	2.9
200.0	dry	1.8

### Fixed Tips

Volume (µL)	Transfer Type	CV (%)
0.01	wet	7.6
0.05	wet	3.1
0.1	wet	3.0
	dry	3.4
1.0	wet	1.8
	dry	2.4
50.0	dry	2.5

Typical data utilizing optimized conditions with either water or DMSO & tartrazine dye. Raw data available on request. All accuracies within ±2% of target volume.



## Specifications

### Performance

#### Cycletime

10 second plate transfer  
(load tips, aspirate 40 uL from plate 1, dispense 40 uL into plate 2, eject tips)

#### Precision

± 0.025mm X/Y/Z positioning

#### Capacity

8 shelf positions

### Labware Compatibility

#### Microplates

SBS standard microplates and reservoirs, PCR plates, tube racks and septum tubes. (96, 384 & 1536 wells)

#### Pipette Tips

Velocity11 certified thin-walled, low retention tips in 96 and 384 formats.

#### Tip Types

Tip	Part Number
96LT 60 µL	06879.002
96LT 200 µL	06880.002
96ST 30 µL	14678.002
384ST 30 µL	11484.002
384ST 50 µL	06881.002

### Operating Requirements

#### Electrical

110-240 VAC, 50/60 Hz

#### Environment

5-40 °C, 10-90% Relative Humidity

#### Air

28 Lpm at 6.2-6.9 bar [1 cfm at 90-100 psi]

#### Vacuum

63.5 cm Hg at 14 Lpm [25 in Hg at >0.5 cfm]  
(for vacuum shelves only)

#### Software

PrepWorks™ Software, AcitveX Control

#### PC System

Windows 2000 or XP

#### Interface

RS-232 serial port with DB 9 pin connector

#### Certification

Designed to meet CE and UL specifications

### Available Head Types

#### Disposable Tip Heads

Head	Maximum Volume	Format
8LT	200 µL	8 and serial dilution
16ST	70 µL	16 and serial dilution
96LT	200 µL	96 and 384
96ST	70 µL	96 and 384
384ST	70 µL	384 and 1536

#### Fixed Tip Heads

Head	Maximum Volume	Format
96F50	50 µL	96 and 384
96F200	200 µL	96 and 384
384F50	50 µL	384 and 1536
384F200	200 µL	384 and 1536

\*LT heads utilize LT style pipette tips, ST heads utilize ST style pipette tips

### Machine Specifications

Height: 78.7 cm [31.0"]

Width: 38.1 cm [15.0"]

Length: 25.9 cm [10.2"]

Weight: 37.2 kg [82lbs]

