

Description	PN
10L Dispense Bottle w/filter	1173000
Cap for 10L Dispense Bottle w/filter	1173002
Dispense Tubing Set - 1 Buffer	7100538
Dispense Tubing Set - 4 Buffers (For Buffer Switching models.)	7100537
4L Waste Bottle	7100534
Cap for Waste Bottle, 4L (Also fits 10L and 20L bottles.)	7100531
Waste Bottle with Level Sensing, 4L	7100542
Cap for Waste Bottle with Level Sensing, 4L	7100544
10L Waste Bottle and Tubing	7100557
20L Waste Bottle and Tubing	7100556
Waste Tubing Set	7100533
Vacuum Line Filter for Waste Tubing	48294
Vacuum Gauge/Regulator (For use with house vacuum.)	4030551
Silencing Muffler for Vacuum Pump (For use with P/N 7103024 pump.)	01113
Fluid filter for dispense bottles (does not include stainless steel adaptor 1172031)	01310

Physical Specifications

Labware	
Microplates	96-well, 384-well that comply with SBS microplate standards 1-2004, 2-2004, 3-2004, and 4-2004.
Microstrips	1 x 8, 1 x 12
Microwells	Flat, round, "V" bottom

Hardware & Environmental	
User Interface	2-line x 24 character LCD screen, 26 alphanumeric soft keys
Power Supply	The instrument uses two internal power supplies: 24-volt 60 watt and 48-volt 60 watt. These supplies are compatible with 100-240 V~; 50-

Hardware & Environmental	
	60 Hz.
Accessory Outlet	≤ 5.0 A, used for vacuum pump
Dimensions (W x D x H)	14 x 17 x 10 inches (36 cm x 43 cm x 25 cm)
Weight (≤)	32 lb (14.5 kg)/36 lb with Buffer Switching (16.3 kg)
Operating Conditions	10° - 40°C (50° - 104°F)
Relative Humidity	The instrument should be operated in a non-condensing humid environment having a maximum relative humidity of 80% at temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.

Manifold Type	
96-tube	Single or Dual manifold with 96 sets of aspirate and dispense tubes arranged in an 8x12 array. Single manifolds can only process 96-well microplates; dual manifolds can process 96- and 384-well plates.
192-tube	Dual manifold with 192 sets of aspirate and dispense tubes arranged in a 16 x 12 array can only process 384-well plates.

Waste bottle volume	4, 10, or 20 liters, depending on the accessory package, (2 bottles, one with sensor)
Supply bottle volume	2 4L or 10L bottles (4 bottles w/ Buffer Switching)

Performance Specifications

Average Residual Volume (Evacuation Efficiency)	
96-Tube Manifold (Single and Dual)	Average residual volume in the microwells is ≤ 2 µL per well after a 3-cycle wash, when 300 µL of deionized water with 0.1% Tween 20 [®] , or buffer equivalent, is dispensed per well into a Costar [®] 96-well flat-bottom plate. The aspirate height adjustment is optimized for the plate prior to testing.
192-Tube Manifold	Average residual volume in the microwells is ≤ 2 µL per well after a 3-cycle wash, when 100 µL of deionized water with 0.1% Tween 20, or buffer equivalent, is dispensed per well into a Costar 384-well flat-bottom plate. The aspirate height adjustment is optimized for the

Average Residual Volume (Evacuation Efficiency)	
	plate prior to testing.

Vacuum Filtration Evacuation Efficiency	
96-Well Filter Plates	Average increased weight of the plate is ≤ 1.2 grams after dispensing 300 μL of deionized water per well into a Millipore® MSHVN4450 96-well 0.45 μm plates (PN 98258) and vacuum aspirated for 30 seconds and blotted on a paper towel.
384-Well Filter Plates	Average increased weight of the plate is ≤ 4.0 grams after dispensing 80 μL of deionized water per well into a Millipore® MZFCN0W10 384-well 1.2 μm plates (PN 98287) and vacuum aspirated for 10 seconds and blotted on a paper towel.

Dispense Precision	
96-Tube Manifold	$\leq 3.0\%$ CV when dispensing 300 μL per well of deionized water with 0.1% Tween 20, with FD&C #1 blue dye at rate 6 into a Costar 96-well flat-bottomed plate. The absorbance of the solution is read at 630 nm and 450 nm reference.
192-Tube Manifold	$\leq 4.0\%$ CV when dispensing 80 μL per well of deionized water with 0.1% Tween 20, with FD&C #1 blue dye at rate 7 into a Costar 384-well flat-bottomed plate. The absorbance of the solution is read at 630 nm and 450 nm reference.

Verify™ Clog Detection Technology	
Timing	A Verify test shall be completed in less than 5 minutes from initiation until test results are displayed.
Performance	The Verify level sensor measurement shall have a repeatability standard deviation of $\sigma_{\text{measurement}} < 0.14$ mm (9.0 μL for 8X8 square well plate), where the $\sigma_{\text{measurement}}$ applies to a relative volume measurement, i.e. the delta between two volumes.