



QUADRA 96SV Pipettor Head

We are pleased to announce the completion of the Quadra 96 DSV (Disposable Small Volume) pipetting head for the Quadra3 and QuadraPlus workstations. This head is interchangeable with all of our other pipettor heads in our Quadra 3 and Quadra Plus workstations. While it is mechanically interchangeable, there will be a software update required to use it on existing Quadra 3 and Quadra Plus workstations. This required software update will be included with each replacement head shipment on replacement orders.

The U.S. list-selling price of the 96 DSV head is \$6,950.⁰⁰. This is the same price as the 96 well 450 μ L-backfill head assembly. When priced in a Quadra 3 or Quadra Plus, it is also the same price as the 450 μ L workstations.

The following is a list of distinct advantages of the 96 DSV head over competitive units.

- 1) Maximum tip volume is 20 μ L.
- 2) The CV from 20 μ L down to 5 μ L is in the 2-3% range.
- 3) The CV below 5 μ L down to 1 μ L is less than 5% utilizing proper pipetting techniques.
- 4) The 96 DSV head can provide non-contact dispensing, the same as the 450 μ L head, by opening the pinch clamp and using 1-2 psi of air pressure to clear the tip.
- 5) For small volumes of 1-2 μ L, we aspirate an excess volume of 5 to 10 μ L then dispense back, leaving 1 or 2 μ L in the tip orifice. This slug of liquid is blown out in a non-contact mode of delivery, clearing the tip orifice. The DSV does not need to rely on piston displacement for a dispense motion.
- 6) No special tip feeder is required. The tip racks infeed and outfeed via the Quadra cassette stackers, the same as the microplates.

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- 7) When the 96 DSV head is used with our Quadra 3 indexing stage for 384 well pipetting, considerable cost savings is achieved. Four racks of 96 DSV tips are still only $\frac{1}{4}$ the cost of one rack of 384 tips. If only one rack of 96 is used for a common reagent, the cost savings are 4 times better. The only cost is machine time; not operator time since the Quadra 3 and the Quadra Plus can run in a walkaway mode of operation.
- 8) A rack of 96 DSV tips may be loaded, shucked, and reused a number of times. It is totally dependent on the users application.

The P10-20 pipette was originally designed, and is still used, for manual single well pipettors. There are a variety of these tips, by different manufacturers, on the market. They will not work reliably on the Quadra DSV head for 2 reasons. First, the majority of the tips are designed to seal with interference fit. An excessive pressure would be required to simultaneously load all 96 tips at one time. Secondly, while many tip boxes are in the 8x12 format, they do not meet the SBS footprint for microplates. Some tip boxes do not hold the tips exactly on the 9mm spacing of the 96 well microplate. For reliable loading and sealing, the user must use the 96 DSV tips supplied by Tomtec.

The 96DSV tip pricing is listed below. The tips are supplied 96 to a rack, 10 racks of tips to a box. They are then packaged 5 cartons (50 racks of 96 tips) per case.

<u># Of Cases</u>	<u>Prices per Carton</u>	<u>Cost per Rack</u>
1 to 9	\$230.00	\$4. ⁶⁰
10 to 24	\$196.00	\$3. ⁹²
25 to 99	\$185.00	\$3. ⁷⁰
100 and up	\$163.00	\$3. ²⁶