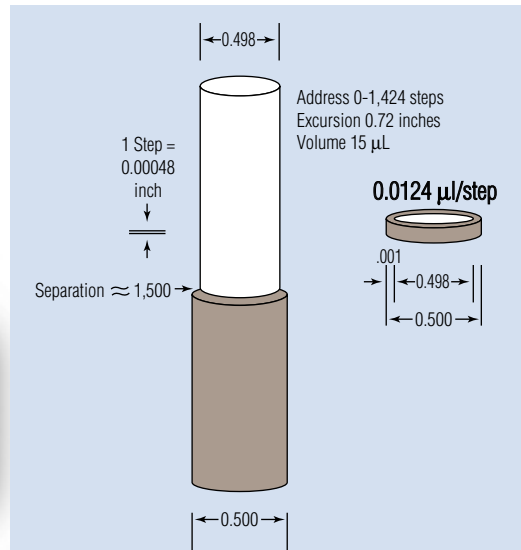


DRD's patented **Differential Resolution Displacement** gives <1%CV from 2.8 mL all the way down to 0.5 µL (500 nanoliters), unprecedented precision over such a wide range and unprecedented single-pump dilution of up to 5000:1. This is the lowest volume, precision model for nanoliter and microchemistry applications.

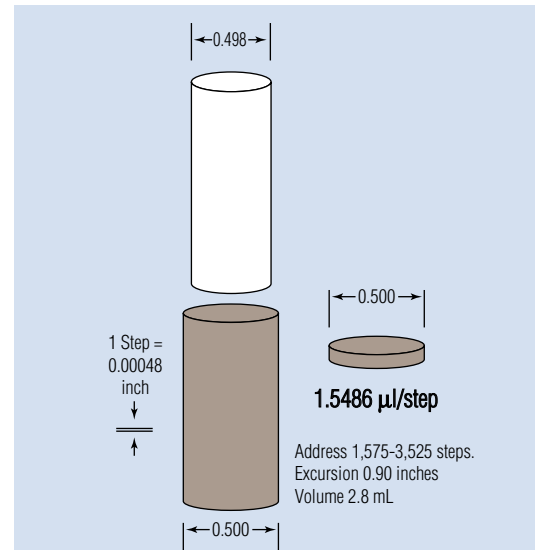
CONCEPT



Small Volume Dual Piston Mode

Two Pistons Move Together

The top piston follows the bottom piston in the upper portion of the chamber, metering an amount of liquid equal to the difference in volume displaced by the two pistons. When the two pistons move together one step, the volume displaced is only 0.0124 µL (thin annular ring).



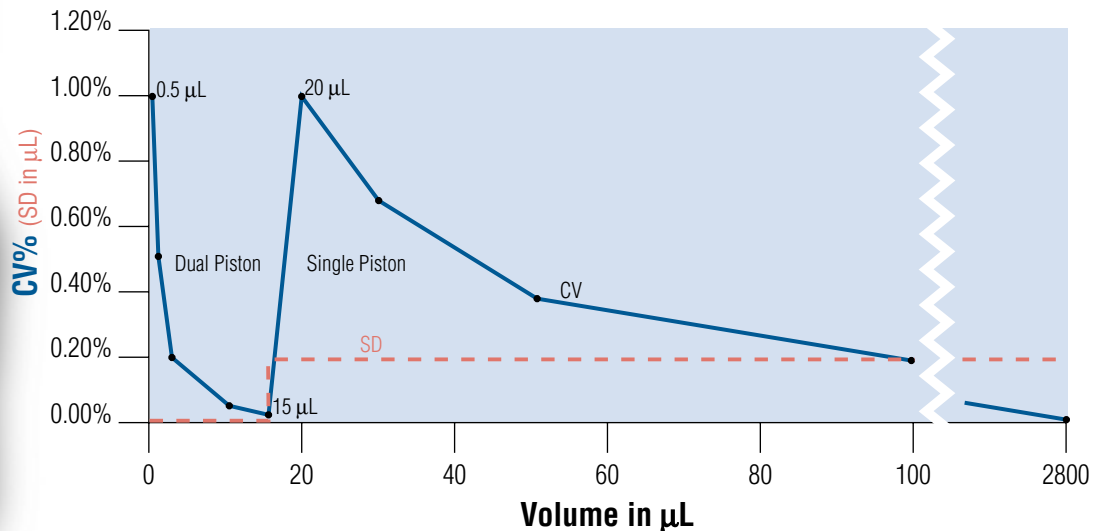
Large Volume Single Piston Mode

Bottom Piston Moves Alone

The top piston remains stationary as the bottom piston moves alone in the lower portion of the chamber. Liquid is metered in an amount equal to the volume displaced by only the bottom piston. When the bottom piston moves alone one step, 1.5486 µL is displaced (solid wafer).

PRECISION CV %

DRD CV Control Dip: Upon entering the Dual Piston Mode, the SD drops from 0.2 µL to 0.005 µL, enabling the CV to drop and maintain <1% CV all the way down to 0.5 µL.



ACTUAL SIZE